

# FirstGlimpse®

FirstGlimpseMag.com

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# FirstGlimpse®

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**On Our Cover:** Featured on this month's cover is the Panasonic LUMIX ZS5 (\$299.95; [www.panasonic.com](http://www.panasonic.com)), Belkin Share Max Wireless Router (\$79.99; [www.belkin.com](http://www.belkin.com)), Epson All-In-One Stylus NX420 with 802.11n (\$99.99; [www.epson.com](http://www.epson.com)), and Livescribe Echo Smartpen (\$169.95 and \$199.95 for 4GB and 8GB models, respectively; [www.livescribe.com](http://www.livescribe.com)).



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# The Connected Home

## Discover New Possibilities With Today's Technology

TODAY A WIDE VARIETY of digital devices and technologies work together to make all kinds of information available whenever and wherever you need it. Stream movies to your home theater; download photos from a relative overseas to a photo frame in your living room; or upload music from your MP3 player to your car. Whatever you want to do, there's a product out there to help you do it. Use this digital home blueprint to identify the types of things you want to do, and then go to the appropriate pages to learn about related products and technologies.

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# ce news

BY ANDREW LEIBMAN

## 3D TV's Future Is So Bright, You Gotta Wear Shades

iSuppli predicts that 4.2 million 3D TVs will ship worldwide in 2010. The firm believes these are the early adopters, but in 2011, 3D TV shipments will increase to 12.9 million units and more than double the following year to 27.4 million units. By 2015, iSuppli expects 78.1 million 3D TVs to ship worldwide.



## Facebook Stats

You know all those photos you just uploaded to Facebook? They're apparently taking their toll. According to a presentation at the Velocity 2010 conference, Facebook has had to double the number of servers it relies on to host user data in less than a year, from approximately 30,000 to 60,000 or more. Currently, Facebook has more than 400 million active users, more than half of which visit the site every day. Also revealed at the seminar: Facebook users upload 3 billion new photos each month; share and upload more than 6 billion status updates, photos, and notes per week; spend more than 16 billion minutes on the social media site per day; and view more than 1 million photos every second.

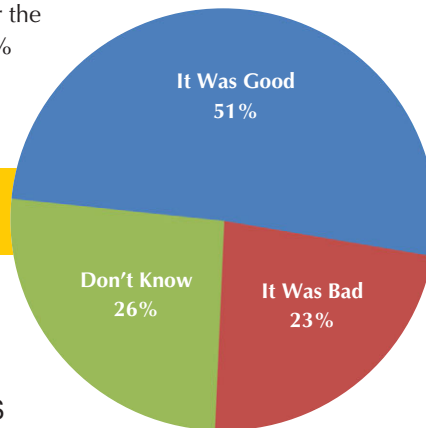


## m a r k e t p l a c e

## Digital Transition, One Year Later

One year after the June 2009 deadline, Retrovo released a DTV progress report regarding the successes and failures of the transition to ATSC digital television from analog NTSC broadcasts. Consumers purchased an estimated 46 million analog to digital converter boxes through government coupons, but a third of all boxes sold were never used. This could be because a large portion of consumers bought digital-capable TVs or subscribed to cable or satellite broadcasting services. According to the survey, 51% of those polled consider the conversion to DTV a good thing, 23% consider it a bad thing, and 26% don't know if it was good or bad.

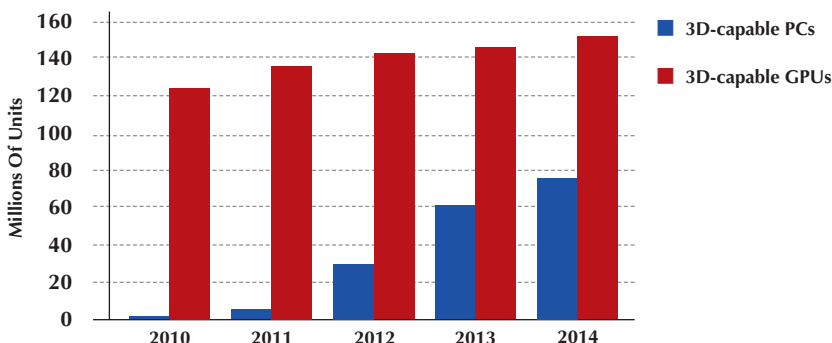
Was The DTV Transition Worth It?



## 3D PCs & Graphics Cards Will Be Big Sellers

A new report regarding Stereoscopic 3D PCs expects 3D-capable computers to be popular in the near term, with almost 1 million 3D PCs shipping by the end of 2010. By 2014, 75 million 3D PCs are expected to ship. The report also shows that 3D-capable graphics cards have a commanding head start on PCs that require not only a 3D-capable graphics card but also 3D-capable monitors, 3D eyewear, and 3D content. By the end of 2010, 125 million 3D graphics cards will ship and grow steadily until 2014, when nearly 150 million units ship. The 3D applications that will spur the sale of 3D PCs and graphics cards will be, primarily, games and Blu-ray movies, followed by streaming TV, photo editing, home video editing, streaming video clips, and professional graphics.

### 3D PCs & Graphics Card Shipments



## tidbits

A new study from Coughlin Associates indicates that by 2015, demand for hard drives will double. The report also predicts that in five years time, 10TB 3.5-inch HDDs, 5TB 2.5-inch HDDs, and 1TB 1.8-inch HDDs will be possible.

Source: Coughlin Associates



4G will really take off in 2012. According to ABI Research, at the end of 2009, more than 170 carriers in 65 countries offered 4G cellular data and voice services to 480 million customers. By the end of 2012, however, the expected number of 4G customers will number over one billion.

Source: ABI Research

A new report suggests that 20% of all TVs sold in the United States will be 3D-capable by 2013. The research firm In-Stat also expects to see a 231% year-over-year shipment growth between 2010 and 2011, which will double the 3D TV installed base in the United States.

Source: In-Stat

A Pulse Report from Retrovo shows that 20% of those surveyed said they will buy an eReader by the end of the year. Of those who consider themselves avid readers, 42% claim they will buy an eReader, while 24% of people who are active readers are planning to buy an eReader.

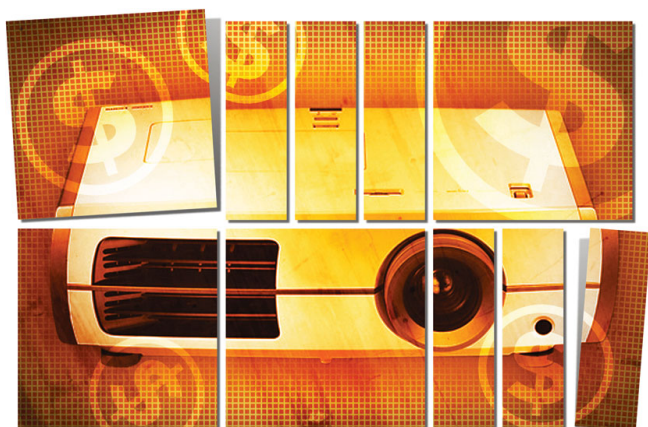
Source: Retrovo



## HOW TO BUY

# A Digital Projector

## A Display As Big As Your Wall



Digital projectors can fit in a drawer, display movies on an enormous screen, and help you give colorful presentations. Using some of the same technologies as HDTVs, a unit slightly thicker than a laptop computer can throw a bright, clear image on a bare wall or projection screen.

**Aspect ratio.** For productivity, video editing, and home entertainment, widescreen is the way to go. A wide 16:9 aspect ratio (relation between horizontal and vertical resolution) simply feels like more “desk space” for users who work with several application windows open at once. Most movies fit a 16:9 projected screen better than a model with a 4:3 display. And really, business presentations will look more professional and forward-looking with a widescreen projector, too.

Most movies fit a 16:9 projected screen better . . .

**Outputs.** Shopping for a digital projector is a little like shopping for a TV or computer monitor. First, concentrate on models with inputs compatible with the video source you want to use, such as your notebook’s video outputs. Note that if you plan to use your laptop as a BD (Blu-ray Disc) player, first verify that it can output protected high-def content. Some models can’t, even if they have HDMI (High-Definition Multimedia Interface) ports.

. . . verify that it can output protected high-def content.

**Picture size.** The throw range, such as 1.8 to 2.3:1, tells you how wide the projected video will be when the projector is a certain distance from the screen. Lower numbers mean you’ll be able to see a wider picture with the unit closer to the viewing surface, which will make the picture brighter.

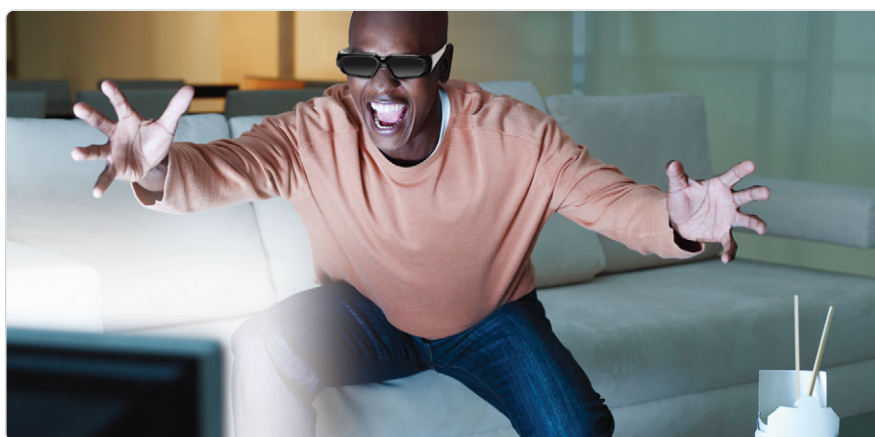
Lower numbers mean you’ll be able to see a wider picture with the unit closer . . .

A low throw ratio can also help an undergrad enjoy his projector in a small dorm room. Also, the wider the spread between the numbers, the more zoom/picture size adjustment range the projector will have. With enough leeway, said student could take his projector to movie night in the commons room.



# What You Need For 3D TV

## Enjoy The Latest In Home Entertainment



Are you ready for 3D television? It's one of the most exciting new entertainment technology developments in years, so don't miss out. We'll show you the four things you'll need in order to enjoy this latest home-entertainment option.

### Home-Theater Receiver With HDMI 3D Pass-Through

- Home theaters that feature a receiver with HDMI 3D pass-through are compatible with 3D signals. This means all of your 3D components, such as your BD player and HDTV, can handle 3D signals without incurring any data loss, which could result in various forms of image or audio quality degradation.
- Your 3D video signals will be routed to a 3D-compatible HDTV and decode high-resolution audio for a true "concert hall" sound reproduction.

### Active Shutter Eyewear

- A far cry from the plastic-and-cardboard "glasses" of yesteryear, today's active shutter eyewear actually communicates with the TV; the television tells the eyewear which eye should see the image currently being shown, thus creating a stereoscopic 3D image.
- Some 3D systems will come with eyewear, but they can also be purchased separately.
- Note that not all brands of 3D televisions are compatible with all brands of eyewear, so you'll need to check compatibility before buying.

### 3D-Ready Blu-ray Disc Player

- Most 3D-ready BD (Blu-ray Disc) players are also Internet-enabled, which can expand your entertainment options.
- Because most current broadcast attempts at 3D have been sporadic and largely experimental, the majority of 3D programming will be delivered on BD for some time to come.
- 3D BD players can also play non-3D BDs and DVDs, so you're not limited to 3D-only playback.

### 3D-Ready HDTV

- These come in LED, LCD, RPTV, and plasma versions and with large screen sizes (from 40 inches all the way up to 82 inches).
- The 3D specification can take advantage of a TV capable of displaying 1080p, but most systems can display 3D at lower resolutions if need be. 3D televisions also operate in 2D, so you can continue to watch regular programming.

BY ROD SCHER

# HT Connectivity Possibilities

## Networking Multiplies Entertainment Avenues

The Internet has come to your living room. More and more home-theater devices—from your set-top box to your HDTV itself—are able to go online. This development is an exciting one because of all the new entertainment avenues Internet connectivity offers.

But first, a technical note: You need broadband Internet service and a wired or wireless home network in order to take advantage of these new capabilities. Some home-theater equipment with Internet connectivity comes with a LAN port for a wired (Ethernet or powerline) network connection. Others have built-in Wi-Fi support for wireless networking. Still others have both. Note that you might be able to add Wi-Fi capability to a device with a LAN or USB port with an adapter (sold separately).



### HDTVs & BD Players

- Instant access to movie streaming, social media, and useful on-screen widgets
- Lets you enjoy online content without having to boot up a computer
- Various models feature Netflix, YouTube, Twitter, Facebook, Pandora, Skype, Weather Channel, Yahoo! Widgets, CinemaNow, or other streaming services

### Home-Theater & Audio Systems

- Certain devices support iPod docking, multiroom audio playback, Internet radio, Bluetooth, music streaming from a PC, and more
- High-end audio receivers and network music players not only bring in more entertainment sources, but they also distribute them outside a single room
- Some support Rhapsody, Napster, and/or Sirius/XM

### DVRs

- These can tap into updated program listings, let you program your DVR from a Web browser, play music files from your PC, access photo-sharing sites, and stream online video
- More than just TV show recorders, DVRs now include networked media capabilities in a compact unit
- Select DVRs offer Netflix, Amazon Video, Blockbuster On Demand, Picasa, and/or other services

### Gaming Consoles

- Current gaming consoles can stream online video, play your networked media files, browse the Web, and access multiplayer gaming
- Consoles are less expensive than separate devices with similar network features
- Access Netflix, manufacturer online services such as PlayStation Network and Xbox Live, and more



# Get Connected To The Web

## Your Internet-Connected Home Theater

Internet-connectable equipment, such as HDTVs and BD players, are all the rage in home theaters right now because the Web access gives your devices a way to stream music and movies and deliver Internet-based content directly to your home theater. Here, we'll show you the different ways you can connect Internet-capable electronics to the Internet.



### Ethernet Cable

You can run a length of Ethernet cable directly from your router to the Internet-connected device.

#### Pro

- Ensures that your home-theater devices receive a reliable Web connection that transfers data at the full speed you pay for, which you might not experience using powerline adapters or Wi-Fi.

#### Con

- If the router is a good distance from your home theater, you may need to drill holes in the floor, walls, or ceiling to run the cable between rooms. Other work may need to be done to conceal cables and avoid tripping hazards.

### Powerline Adapters

A powerline network transfers data over your home's electrical lines using specialized adapters that plug into your wall outlets. To connect to your router and home theater, Ethernet cable is run between the device and the nearest wall outlet where the adapter is plugged in.

#### Pro

- Delivers a reliable wired connection that's fast enough to support HD streaming and snappy Web downloads.

#### Con

- If your house has older wiring, it may affect performance and compatibility.

### Wireless

To use a Wi-Fi connection, you'll need a wireless router, and depending on your device, you may also need a Wi-Fi adapter that's designed specifically for use with your home-theater equipment.

#### Pro

- Wi-Fi connections require the least amount of setup, and you don't need to conceal any cables.

#### Con

- You may experience drops in performance due to signal interference from microwaves, baby monitors, landline phones, and dense flooring and walls. And your maximum download speeds can be slower than a powerline or Ethernet cable connection.

## ESSENTIAL THINGS TO KNOW

## LED TVs

**Q What is an LED TV?**

**A** As the term is being used today, an LED TV is actually an LCD TV that's backlit by light-emitting diodes instead of CCFLs. It's not a TV with pixels made of LEDs. These are starting to be known as LED-LCD TVs.

**Q What is backlighting?**

**A** Unlike plasma TVs, LCDs use a discrete light source to shine through their screens. By controlling backlight transmission through tiny slots of different hues, LCDs present colorful video.

**Q What are CCFLs?**

**A** Cold-cathode fluorescent lamps are long, slim light sources used as backlights in traditional LCD TVs and computer screens. CCFLs are similar in principle to overhead fluorescent lighting found in offices.

**Q How would an LED TV affect my electricity bill?**

**A** All else being equal, an energy-saving LED TV costs less to use than a traditional LCD and much less than a typical plasma.

**Q How does LED backlighting benefit picture quality?**

**A** LEDs make a brighter picture than CCFLs. Depending on the model, LED backlighting can also increase contrast and make colors look more realistic, too.

**Q Is there more than one kind of LED backlighting?**

**A** Yes. Some models of LED TVs use the edge-lighting method of backlighting, while more upscale LED TVs use full-array backlights.

**Q What is edge lighting?**

**A** Like a traditional CCFL-backlit LCD, an edge-lit LED TV has its backlights lined up around the four edges of its screen, behind which is a reflective panel.

**Q What are the benefits of LED edge lighting?**

**A** Besides reducing the price of an LED TV, which typically costs more than a traditional LCD, edge lighting allows the manufacturer to make the TV thinner.

**Q What is full-array backlighting?**

**A** This backlighting method replaces an edge-lit LCD's reflective panel with a grid of white LEDs. This enables a brighter picture and a capability called local dimming.

**Q What is local dimming?**

**A** Full-array LED TVs can dim or turn off the white LED backlights behind pixels in dark parts of the video. This helps black parts of the picture look black, as in a plasma. An edge-lit LED-LCD with a reflective panel can't do this.





# Yes, You Need To Calibrate

## Get Optimal HDTV Video Results

### Why A Professional Calibration?

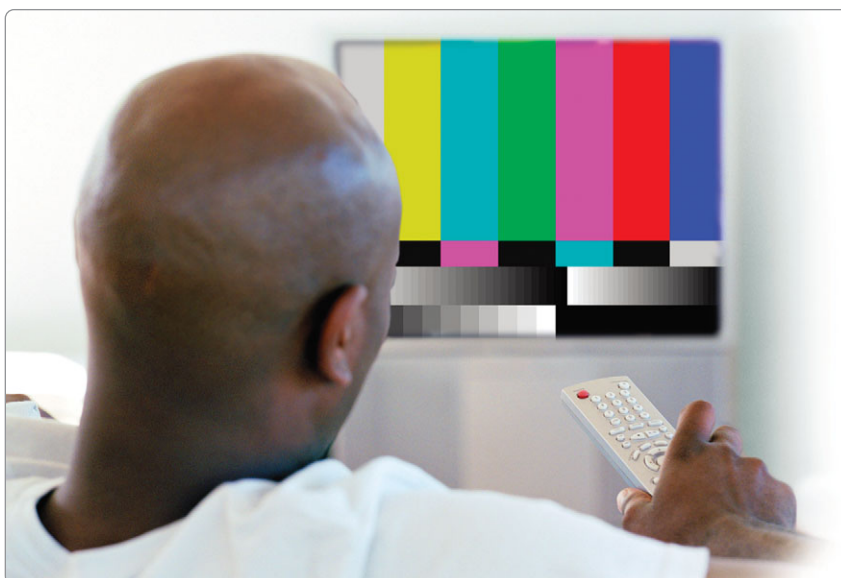
- Calibration specialists are ISF (Imaging Science Foundation) certified, which means they are trained to use highly specialized and expensive equipment to calibrate HDTVs correctly.
- A calibration DVD might be a tempting alternative, but it won't let you adjust all of your HDTV's settings. An ISF-certified professional can access advanced service menus to calibrate your TV correctly. These settings aren't meant to be experimented with, so if you poke around and gain access to your TV's service menu, it's best to leave it alone. Many people have rendered their TVs useless because they didn't heed this warning.

### Your Video May Not Be All That It Seems

- Most TVs are shipped with a set standard video mode meant for an electronics store display—this means that the TV's settings are adjusted to show the best picture in a bright, fluorescent-lit environment. Because it's unlikely your lighting at home matches the store's surroundings, you should have your TV professionally calibrated by a specialist to accommodate your home's unique lighting environment.
- An HDTV's viewing angle and your home-theater setup also affect how your HDTV should be calibrated. An ISF-certified professional takes these factors into account when making adjustments.
- Although you can expect to budget 10 to 15% of the purchase price of your television for a professional calibration, consider it an entertainment investment that will pay dividends for years to come.

### What You Can Expect

- A calibration session includes two inputs on the set, so no matter which you use, you will get the best image clarity and sharpness your HDTV can provide.
- A professional will use color analyzer equipment to objectively tune color saturation and temperature as precisely as possible, letting you see video exactly the same way it looked when it was created.
- Your HDTV's contrast will be set up to provide greater video detail as well as the darkest blacks and brightest whites.



# HDTVs

## Screen Technology Differences



### LCD (liquid-crystal display)

LCDs can use one of two backlight technologies. CCFLs (cold cathode fluorescent lamps) are the most common, but LEDs are the latest backlight technology to hit the LCD scene. (See the “LED” section for more info on LED TVs.)

#### Pros

- The thin profiles and light weight of LCDs make them easy to mount on a wall.
- Power demands are a bit lower than comparably sized plasma displays and considerably lower than CRT televisions.

#### Cons

- Fast-moving images may suffer from a slight trailer effect, but with improved

LCD technology, the effect is barely perceptible.

- When pixels stick on or off, they show up as either a pinpoint of bright light or black, which can be distracting on-screen.
- From certain viewing angles, LCDs will lose video contrast and color.
- LCDs with CCFL backlighting suffer from leaking light, and unlike LEDs, they can’t dim certain areas on-screen. This may result in blacks and whites that appear to be more gray in color.

#### Best For

- Streaming PC content
- Bright, sunny rooms

### LED (light-emitting diode)

LED TVs are actually a type of LCD TV. These sets use one of two LED backlight technologies:

- Full-array lighting places LEDs behind the screen in a grid pattern, letting the TV dim certain LEDs for the best contrast ratios available.
- Edge-lit sets have LEDs placed around the frame of the TV, and light is directed toward the center of the screen. Edge-lit models cost less than full-array sets and are a lot thinner.

#### Pros

- By using LEDs, these sets use a lot less electricity than other HDTVs, and

they don’t contain harmful mercury.

- Overall, LED TVs are one-third thinner than other LCD TVs and have longer life spans.
- Plasmas are well-known for their deep blacks, crisp whites, and fast response times, but LED TVs closely match in performance.

#### Cons

- These sets are costly because they feature a relatively new technology.
- Blooming, or a halo effect, may encircle bright images that are on dark backgrounds.

#### Best For

- Eco-conscious viewers
- Fast-paced gaming

### Plasma

#### Pros

- A plasma TV’s phosphors light up evenly across the screen to create images, which are consistently bright and clear with vibrant colors.
- The contrast ratio is high, so you’ll see some of the darkest blacks and brightest whites.

- The design and technology of plasma TVs lend themselves to large screen sizes—typically 50 inches or greater.
- Rapid pixel response means no blurry motion.
- Wide viewing angles give you the same high-quality images on-screen no matter where in the room you happen to be sitting.

#### Cons

- Some plasmas are susceptible to image burn-in if not cared for properly.
- Low air pressure and high altitudes may cause plasmas to buzz.
- Some plasmas have highly reflective glass, which isn’t ideal in sunny settings.

#### Best For

- Large groups who watch TV together
- Movies or sports with nonstop action

### RPTV (rear-projection TV)

#### Pros

- RPTVs are surprisingly lightweight for their sizes.
- You’ll find exceptional picture quality on very big screens (65 inches and larger).

- As screens get bigger, RPTVs tend to be more cost-effective than an LCD, LED, or plasma TV.

#### Cons

- With depths of 16 to 24 inches, these TVs are far too big and bulky to mount on a wall.

- RPTVs require lamp replacements every few years.

#### Best For

- Anyone who wants to bring a cinematic experience home
- Big, roomy home theaters





# HDTV Glossary

Balderdash! OK, HDTV jargon isn't quite *that* bad, but there are a few terms that every shopper needs to know. Here is your cheat sheet.

**aspect ratio**—Put simply, it's the shape of the TV's screen. An HDTV has a wider picture than a traditional TV of the same vertical screen height. An HDTV has a 16:9 aspect ratio, meaning that if its screen were 16 inches wide, it would be 9 inches tall. A regular 4:3 TV screen would be 12 inches wide at the same 9-inch height.

**HDMI (High-Definition Multimedia Interface)**—A type of cable connection that carries both high-resolution video and uncompressed multi-channel audio between HDTVs, home-theater receivers, and the other components required for your home-theater setup. HDMI cables maintain top picture and sound quality.

**HD tuner**—A built-in tuner for receiving local high-def broadcast TV channels. You won't need one if you have cable or satellite service. Some more expensive HDTVs include one, but separate HD tuners and antennas are available if your TV doesn't have one.

**interlaced**—When an HDTV displays an interlaced image, as in 1080i or 480i resolutions, it really shows you every other horizontal line of a frame of video (called a field) at a time. Sixty times a second, the TV displays the other field of the frame, or the lines not shown in the previous field. Interlaced video can appear to flicker or might cause moving objects on-screen to have blurred edges.

**LCD (liquid-crystal display)**—Like a notebook's screen, an LCD HDTV uses a fluid crystal substance to form pixels of color in front of a backlight. LCDs may not be able to match plasma TVs' deep black and gray areas, but they're lighter, sometimes less fragile, and considered easier to set up. These work better in brighter rooms or if you will be playing unchanging images on the screen for an extended period of time.

**plasma**—Plasma TVs use a tiny tube of gas for each pixel, and electricity makes each pixel glow. Plasmas create deeper blacks and sometimes brighter colors than LCDs and have better contrast. These also offer slightly better viewing angles. However, older or less expensive models can also suffer from permanent screen

damage if an unchanging image, such as a TV channel's stock ticker or parts of certain video games, is displayed too long.

**progressive scan**—A TV showing a progressively scanned image, as in 1080p or 720p resolutions, displays a full frame of video (both odd-lined and even-lined fields) all at once. Progressive-scan video looks sharper than interlaced does and doesn't flicker.









**projection**—Some large-screen HDTVs offer lower-priced alternatives to LCDs or plasmas by using projection technologies. These technologies vary, but all projection TVs throw light on a screen from the front or rear. This means they are bulkier than plasmas or LCDs, but some sets have stellar picture quality.

**viewing angle**—No matter where you sit in front of an HDTV with a wide viewing angle, such as 170 degrees, its picture should look reasonably good. Test this before you buy.

**widescreen**—A TV or monitor that's wider horizontally in relation to its vertical height. HDTVs typically have a 16:9 aspect ratio rather than an older 4:3 display.

## Should You Get An LCD Or LED-LCD TV?

So you've decided to get an LCD TV. The next step is deciding *which* LCD TV to invest in. LCDs use different kinds of lights to project an image onto the screen. A traditional LCD uses CCFLs or EEFLs whereas new LED-LCDs use LEDs.

		Light projection	Size	Dimensions; Weight***	Native resolution	Viewing angle	Inputs & Outputs	Refresh rate**
	What It Means	How images are projected on-screen; type of backlight an LED-LCD uses	The diagonal measurement of the TV's screen	Height x width x depth; How much the TV weighs	A fixed TV resolution; images are best displayed in this	The angle at which the viewer can see the screen clearly	Inputs let you connect devices; Outputs transfer information to peripherals	Speed at which a screen is redrawn every second
LED-LCD	 <b>Insignia NS-37L550A11</b> MSRP: \$629.99* SKU 9602959	CCFL	37 inches	24.6x35.5x9.5 inches; 32.4 pounds (with stand)	1080p	N/A	4 HDMI, 1 Component, 1 Composite, 1 PC; 2 audio outputs	120Hz
	 <b>Panasonic VIERA TC-L42U25</b> MSRP: \$899.95* SKU 9783658	EEFL	42 inches	25.1x40.2x4.2 inches; 39.7 pounds	1080p	178 degrees	3 HDMI, 1 Component, 2 Composite, 1 PC; 1 audio output	120Hz
	 <b>LG LD520</b> MSRP: \$1,900* SKU 9797709	CCFL	55 inches	32.9x53.4x4.3 inches; 72.5 pounds	1080p	178 degrees	3 HDMI, 1 Component, 1 Composite, 1 USB; 2 audio outputs	120Hz
	 <b>Samsung LN60C630</b> MSRP: \$2,499.99* SKU 9904809	CCFL	60 inches	33.3x51.3x3.4 inches; 70.6 pounds	1080p	N/A	4 HDMI, 2 Component, 2 Composite, 2 USB	120Hz
	 <b>Insignia NS-40E560A11</b> MSRP: \$999.99* SKU 9688972	LED (n/a)	40 inches	25x38.9x1.5 inches; 34.2 pounds	1080p	178 degrees	4 HDMI, 1 Component, 1 Composite; 2 audio outputs	120Hz
	 <b>Sharp LC-52LE810UN</b> MSRP: \$2,299.99* SKU 9730536	LED (edge-lit)	52 inches	32x49.6x1.6 inches; 52.9 pounds	1080p	176 degrees	4 HDMI, 1 Component, 1 Ethernet, 2 USB; 2 audio outputs	120Hz
	 <b>Samsung UN55C6300SF</b> MSRP: \$2,499.99* SKU 9790851	LED (edge-lit)	55 inches	50.5x30.2x 1.18 inches; N/A	1080p	N/A	4 HDMI, 1 Component, 1 Ethernet, 2 USB; 2 audio outputs	120Hz
	 <b>Sony BRAVIA KDL60EX700</b> MSRP: \$2,999.99* SKU 9763394	LED (edge-lit)	60 inches	34.6x56.4x 2.6 inches; 60.2 pounds	1080p	178 degrees	4 HDMI, 2 Component, 1 USB, 1 Ethernet; 1 audio output	120Hz









\*Prices listed in this issue are for general reference and may vary from retailer pricing.  
\*\*\*Unless specified, this is without stand

\*\*Comparing refresh rates between plasma and LCD TVs is like comparing apples to oranges.  
For more in-depth information about refresh rates, please ask a sales associate.



## Which Plasma TV Is Best For You?

If you're planning on buying a plasma HDTV, it might be hard to decide on one just by looking at a wall of gorgeous sets. Refer to this chart for further help when shopping.

		Size	Dimensions; Weight***	Native resolution	Viewing angle	Inputs	Outputs	Refresh rate**
	What It Means	The diagonal measurement of the TV's screen	Height x width x depth; How much the TV weighs	A fixed TV resolution; images are best displayed in the native resolution	The maximum angle at which the viewer can see the screen clearly	Inputs let you connect your components to your TV	Outputs transfer information from your TV to peripherals, such as audio to speakers	Speed at which a screen is redrawn every second
	<b>Insignia NS-42P650A11</b> MSRP: \$499.99* SKU 9748831	42 inches	27.5x40.6x11.9 inches; 43 pounds (with stand)	720p	N/A	2 HDMI, 2 Component, 1 Composite	2 audio	600Hz
	<b>Samsung PN42C450</b> MSRP: \$599.99* SKU 9791253	42 inches	24.8x40.6x2.7 inches; 38.6 pounds	720p	N/A	3 HDMI, 2 Component, 1 Composite, 1 PC	N/A	600Hz
	<b>Insignia NS-50P650A11</b> MSRP: \$697.99* SKU 9745916	50 inches	31.25x47.37x11.87 inches; 50.7 pounds	720p	N/A	2 HDMI, 2 Component, 1 Composite	2 audio	600Hz
	<b>Samsung PN50C450</b> MSRP: \$749.99* SKU 9789725	50 inches	28.5x47.37x11.25 inches; 51.8 pounds	720p	N/A	3 HDMI, n/a Component, n/a Composite, n/a PC	N/A	600Hz
	<b>Panasonic TC-P42U2</b> MSRP: \$799.95* SKU 9761059	42 inches	26.1x40.6x3.7 inches; 49.6 pounds	1080p	N/A	3 HDMI, 2 Component, 2 Composite	1 audio	600Hz
	<b>Panasonic TC-P50G20</b> MSRP: \$1,499.95* SKU 9788953	50 inches	30.3x48x3.5 inches; 57.3 pounds	1080p	N/A	3 HDMI, 2 Composite, 2 Component, 1 PC	1 audio	600Hz
	<b>LG INFINIA 50PK950</b> MSRP: \$1,699.99* SKU 9720169	50 inches	29x46.9x2.1 inches; 66.6 pounds	1080p	N/A	4 HDMI, 2 Component, 1 PC, 1 USB, 1 LAN	N/A	600Hz
	<b>Samsung PN50C7000</b> MSRP: \$1,999.99* SKU 9809723	50 inches	29.5x47.7x1.4 inches; 54 pounds	1080p	N/A	4 HDMI, 2 Component, 1 Composite, 1 PC, 1 USB	N/A	600Hz

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

\*\*\*Unless specified, this is without stand

\*\*Comparing refresh rates between plasma and LCD TVs is like comparing apples to oranges.

For more in-depth information about refresh rates, please ask a sales associate.

NOTEWORTHY

# Accessories & Services

As you head toward the HDTV section of your local consumer electronics store, you'll invariably pass shelves of bland-looking HDTV accessories. There are a handful of accessories that are vital to getting the most from your HDTV. The following is a rundown of the accessories we recommend to complete your home-theater setup.



## WALL MOUNTS & BRACKETS

- View your HDTV from the best possible angle
- Adjust your TV's position by tilting it up or down as needed
- Maximize space in your viewing room by hanging up your TV



## CLEANING KIT

- Protect your HDTV's screen by using specially formulated sprays and cloths while cleaning it
- Eliminate the danger of scratching delicate screens
- No-drip formulas prevent damage to other home-theater equipment



## CORD-CONCEALMENT KIT

- Hide multiple cords while keeping them organized
- Minimize cord clutter, especially with wall-mounted sets
- Keep the focus on your new HDTV, not the cords connected to it



## TV STANDS

- Offer flexibility if you're unable to mount your HDTV on the wall
- Available in a variety of finishes to match any décor
- Provide a place for additional home-theater equipment



## HDMI CABLES

- Carry uncompressed digital audio and video signals to and from your HDTV and its components
- Eliminate interference from other components with shielding (found in higher-end cables)



## UNIVERSAL REMOTE CONTROL

- Simplify your home-theater setup with one remote that can control all of your components
- Program different functions so that you will be able to watch a movie by pressing just one button, for example
- Easily view options in the dark with a backlit LCD



## SURROUND-SOUND SYSTEM

- Maximize your HDTV experience with theater-like audio
- Feel like you're in the movie scene instead of just watching it
- Even out softer and louder programming with an equalizer



## SURGE PROTECTORS/POWER CONDITIONERS

- Protect your home theater from potential damage by using a surge protector that will absorb electrical fluctuations
- Filter out "dirty power" (also known as electrical "noise" or radio interference) that can degrade your home theater's audio and video with a power conditioner
- Have peace of mind knowing that your home theater will give you its peak performance for the longest amount of time



## HOME-THEATER SERVICES

A home theater is a pretty big investment, so it's wise to consider letting a professional handle your installation and setup. Let your local CE retailer tackle the following tasks, and you'll be able to enjoy the full glory of HD in no time.

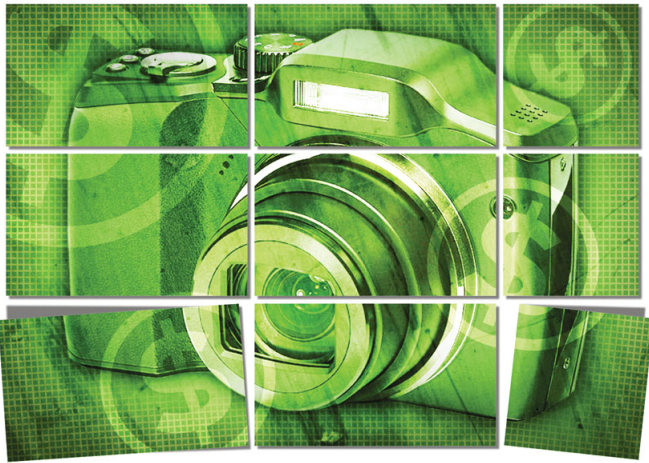
- Home Theater In-Home Consultation
- TV Recycling
- TV Calibration
- TV Mounting & Cord Concealment
- Remote Control Programming
- Speaker Setup



## HOW TO BUY

# A Durable Digital Camera

## Take Your Camera Anywhere



Most digital cameras are small and portable enough to take with you everywhere, but they may not be tough enough to withstand your most robust adventures. A durable camera, on the other hand, has one or more of the following features that makes it ideal for capturing shots in places you never thought a digital camera should go.

### Go below the water's surface.

Some durable digital cameras are waterproof and can be taken a considerable depth under water. With a waterproof camera, you can capture unforgettable shots of a reef while you're snorkeling or diving or a unique shot of your kids' race in the hotel pool.

... you can capture unforgettable shots of a reef while you're snorkeling ...

**Protection from accidental drops.** A durable camera that's shockproof can withstand accidental drops from certain distances, so if you're out hiking and the camera slips through your fingers and lands on the hard ground below, it should still function properly when you pick it up. These are also handy for kids, who may drop or bump the camera while shooting photos.

These are also handy for kids, who may drop or bump the camera . . .

**Capture subzero shots.** Even in the coldest weather, a durable digital camera that's freezeproof will keep working. Unlike normal point-and-shoots, a freezeproof camera's performance won't be hampered in frigid temperatures. Whether you're going on a winter ski trip or building a snowman in the back yard with the kids, you can count on a freezeproof durable camera to capture the shot.

**Stand up to wear and tear.** Durable cameras built with a crushproof feature are protected from extreme accidents where your camera may be crushed, such as when your youngest child rolls over it with her bike. And cameras with a dustproof feature enable you to snap photos at a sandy beach or on a dusty hiking trail.

# Panasonic's LUMIX ZS5 Digital Camera

## Intelligent Shooting



Panasonic's LUMIX ZS5 (\$299.95; [www.panasonic.com](http://www.panasonic.com)) digital camera is compact, but it's crammed full of powerful features, such as AF tracking capabilities and 720p HD movie recording. So no matter where your photo shoots take you, the LUMIX ZS5 can travel along in your purse or pocket and snap stunning pictures and videos that you can preview using the ZS5's 2.7-inch LCD.

### Zoom In To The Action

The LUMIX ZS5 has a 12X optical zoom, so you can home in on the action and capture detailed close-ups. And you can get even more up-close and personal with Panasonic's Intelligent Zoom, which digitally extends the optical zoom up to 16X. But unlike the digital zoom incorporated into other cameras, Intelligent Zoom gets you closer to your subject while maintaining the same image quality.

### Shoot Crystal Clear Photos

Shooting photos in low-light situations is made easier with the LUMIX ZS5's Power O.I.S. (Optical Image Stabilizer) feature. The Power O.I.S. helps to correct the camera shake that occurs from holding the camera with your hands and pressing the shutter button when shooting at a slow shutter speed. The end result is brighter pictures that appear less blurry.

### Specs Snapshot

- Megapixels: 12.1
- Optical Zoom: 12X
- Intelligent Zoom: 16X
- HD Movie: 720p, 30fps
- Internal Memory: 40MB
- Memory Cards: SD/SDHC/SDXC

### Capture Group Shots

Not only does the ZS5 have Face Detection, which locks on to your subjects' faces and automatically adjusts the focus and exposure needed to capture the best shot, but it also has Face Recognition. The ZS5 can pick up on faces it has detected before, label them with a name you choose, and use the best settings so that your subject's face appears brighter and more focused than others. And with the ZS5's 25mm ultra-wide-angle lens, you can fit more of your friends' and family's faces into the frame of your picture.



# Advanced Features In A Compact Size

## Panasonic's LUMIX FP2 & FH22

Panasonic ([www.panasonic.com](http://www.panasonic.com)) has two LUMIX point-and-shoot models exclusive to Best Buy: the FP2 (\$159.99) and the FH22 (\$229.99). Both are easy to use and include Panasonic's unique Intelligent Auto mode, which automatically adjusts the camera's settings based on the conditions you're shooting in. To ensure your photos turn out the way you want them to, these easy-to-use models also include other notable features.

### The Basics

The LUMIX FP2 and FH22 both offer advanced features in a compact body. Both have 14MP, letting you create large prints with crisp detail. The FP2 includes a 4X optical zoom and a 2.7-inch Intelligent LCD for framing and reviewing your photos. The FH22 has an 8X optical zoom and 3-inch touchscreen Intelligent LCD.

### Other Extras

Both cameras feature an HD movie mode, which lets you record high-quality 720p video. Instead of navigating through several menu screens to set up a for a shot, the LUMIX FP2 and FH22's Quick Setting feature will give you access to frequently used camera settings simply by pressing the camera's Quick Menu button.



**Panasonic LUMIX FH22**  
\$229.99  
[www.panasonic.com](http://www.panasonic.com)



**Panasonic LUMIX FP2**  
\$159.99

### Shooting Features

With an Intelligent Auto mode, you no longer need to tinker with camera settings to try to get the best shot. By automatically selecting seven detection and correction functions to match your environment, the LUMIX FP2 and FH22 will take care of the work and deliver optimal photo results. To prevent blur when shooting subjects in motion, both cameras will increase their shutter speeds and ISO settings using the Intelligent ISO control. And, if your subject is sitting still, the Intelligent ISO control will produce clear images by using a low ISO setting. The Mega Optical Image Stabilizer (O.I.S.) helps minimize the effect of a shaky hand, and the Venus Engine II LSI image processor ensures fast and accurate response times. The LUMIX FP2 and FH22 also offer Face Detection to keep the expressions of friends and family in focus.

# It's All About The Details

## Making Sense Of Resolution



To give you a better idea of how pixel count affects image detail, we've reduced the number of pixels used in this image from 1 million (the one on the left) to 15,000 (the one on the right). Note that although you can generally distinguish the objects in the picture on the right, the original provides you with small details on the clouds and corn stalks.

Our photos and videos are how we remember the past, and the little details, such as facial expressions, are what make a lasting connection. When it comes to digital images and videos, the details are made using millions of tiny pixels that form a whole image. The total number of pixels is summed up as a resolution, and it indicates how detailed a particular image or video will appear.

### Video Resolution

Videos are actually still images refreshed so quickly that your brain sees the result as a moving picture. With HD cameras that capture 1080p or 1080i video, every single frame is made up of more than 2 million pixels (1,920 x 1,080). 720p video is made up of a little fewer than 1 million pixels (1,280 x 720). The higher the resolution you capture, the crisper the video will appear when you watch it on an HDTV.

The second important factor for video detail is how often the image is redrawn. A full frame of 1080p and 720p video is captured every 1/30th of a second, while 1080i captures only half a frame every 1/30th of a second with the second half captured the next 1/30th of a second.

Depending on how fast the action is, our eyes might detect the slower refresh rate of 1080i as flicker on-screen.

### Photo Resolution

Compared to a TV or monitor screen, a printed photo requires much greater resolution to deliver sharp-looking results. For example, an 8MP camera captures images with 8 million pixels (1MP is equal to a million pixels), which is enough detail for photos printed at sizes up to 8.5x11. But if you tried to print a poster-size print from the 8MP image, the picture may appear blurry or pixelated.

The more megapixels your images feature, the larger the prints you can create. Note that unless you plan on creating prints larger than 8.5x11, you don't need to focus on the megapixel count when shopping for a new digital camera because nearly all models offer more than 8MP.

# Your (School) Life In Pictures

## Back-To-School Cameras From Olympus

Ask any graduate what he or she would have done differently, and you'll probably hear: "I wish I'd taken more pictures." To ensure academic memories are captured for posterity, Olympus ([www.getolympus.com](http://www.getolympus.com)) has a 14MP camera solution for every student.



### For The Social Student

#### Olympus FE-4030

MSRP: \$149.99\*  
SKUs: 9765198 (gray), 9766521 (pink), 9766479 (white)



### For The Budding Photographer

#### Olympus STYLUS-7030

MSRP: \$199.99\*  
SKU: 9765204 (titanium)



### For The Active Lifestyle

#### Olympus STYLUS TOUGH-6020

MSRP: \$299.99\*  
SKUs: 9765213 (black), 9775028 (pink), 9774893 (green)

14MP • 4x Wide-Angle Zoom • 2.7-inch LCD

#### A Pocket Cam For All Your Extracurriculars

This slim companion lets you capture slices of life in the hallways before class, backstage at the school musical, and on Friday nights out and about. It's compact but loaded with features and value.

#### What's Included:

AF Tracking—because life doesn't stand still

Wide-angle lens gets everyone in the shot

Advanced Face Detection of up to 16 faces

Olympus's Creative Art Filters apply special effects in-camera

4x optical zoom gets up close and personal

**Perfect For:** A student savvy with her money as well as the social scene.

14MP • 7x Wide-Angle Zoom • 2.7-inch LCD

#### Get A Little Serious

With AF Tracking and a 2.7-inch LCD, the STYLUS-7030 can help develop a young shutterbug's talent.

#### What's Included:

7x zoom for athletes on the court; wide-angle for fans in the stands

Digital and sensor-shift image stabilization keep handheld shots crisp

Shadow detail enhancement for shots of opportunity in poor lighting

In-camera panorama mode lets you assemble triple-wide images

Beauty mode softens facial blemishes . . . 'nuff said

**Perfect For:** Yearbook staff, school newspaper reporters, and avid hobbyists.

14MP • 5x Wide-Angle Zoom • 2.7-inch LCD

#### Takes What You Dish Out, Indoors Or Out

On the field, up in the bleachers, or out in the great outdoors, active youth need a camera that won't let them down.

#### What's Included:

Shockproof (5 feet), waterproof (16 feet), and freezeproof (14°F) construction

720p high-def movie recording at the touch of a button

Tap Control lets you enable functions even when you're wearing gloves

Dual Image Stabilization eliminates the handheld shakes

Anti-glare 2.7-inch LCD is viewable in sunlight

**Perfect For:** Students on the go—by mountain bike, snow skis, or surfboard.





# Reasons To Choose SanDisk

## Technology That Delivers High-Quality Results

When you need to purchase a flash memory card for your digital imaging needs, you want a card that offers reliability and durability. With that in mind, SanDisk ([www.sandisk.com](http://www.sandisk.com)) offers high-performance flash memory cards that can be used by amateurs or professionals alike. And, to ensure your digital memories are always protected, SanDisk's cards are made to withstand life's mishaps.\*

### Reliable & Durable

- Because SanDisk cards are waterproof, you can confidently snap photos or shoot video at your daughter's pool party.
- If your son accidentally runs over your SanDisk card with his bike, the card's digital content will survive thanks to its impact-proof technology.
- Despite leaving a SanDisk flash memory card in your jeans and letting it go through the wash, your recorded memories remain protected from shocks and vibrations.
- Designed to handle extreme temperatures, SanDisk flash memory cards can withstand sweltering heat if you leave one on a hot picnic table or the frigid cold if you carry one on the ski slopes.
- The X-ray machines you encounter during airport security won't hamper the image data saved on your SanDisk card because it's X-ray proof.
- Exposure to magnetic fields won't affect a SanDisk flash memory card.

\*SD, SDHC and microSD card formats up to 32GB only; See [www.sandisk.com/proof](http://www.sandisk.com/proof) for additional information

†Using a Nikon D90 and SanDisk's Multi-reader as of March 15, 2010

‡Based on SanDisk internal testing; performance may be lower depending upon host device. 1 megabyte (MB) = 1 million bytes.

### SanDisk's History

With over 1 billion memory cards sold in the last 10 years, SanDisk has proven itself to be a flash memory card leader with the following accomplishments:

- SanDisk was the first to introduce the CompactFlash card and created a Power Core Controller technology that delivers fast read and write speeds up to 90MB per second.
- Introduced the fastest SDHC memory card with read and write† speeds up to 30MB per second.‡
- With over 20 years selling flash memory cards, SanDisk offers the most popular card formats—SD, SDHC, microSD, SDXC, CompactFlash, and Memory Stick PRO.

# What Is Image Stabilization?

## How It Applies To A Camera

A great shot can end up being a bad photo or video when an unsteady hand makes it blurry. Luckily, many cameras and camcorders have built-in image stabilization technology

(also known as antishake, antiblur, or vibration reduction) to reduce the effect of shaking and help you capture sharp photos and videos.



### Crisp & Clear Photos

- Image stabilization is especially useful in low-light settings when the shutter speed is slow and the image sensor is exposed for a longer period of time. Additionally, camera movements are seen more easily when you are using an optical zoom because it makes the shutter speed slower.
- Image stabilization will help produce a sharp image when you are at an outdoor evening wedding or zooming in to capture wildlife.
- Point-and-shoot cameras generally have image stabilization built into the mechanics of the camera, while DSLRs can offer it in the camera mechanics or in the lens.
- Although the image stabilizing technology will help if you have an unsteady hand, it won't be able to compensate for your subject's movement.

### Smooth & Steady Video

- Few people can hold their hand or body still enough to avoid recording jerky video footage when not using a tripod. A camcorder with image stabilization can compensate for your lack of physical stability to produce smoother video.
- Camcorders generally offer both optical and digital image stabilization, which offer different ways of compensating for your body movements so your videos are less shaky.
- Image stabilization on a camcorder is important because it's not always convenient to use a tripod. You wouldn't use one, for example, as you tour a new city on your vacation or follow your kids around the backyard.
- Image stabilization is most helpful when you zoom in close to a subject.

## ESSENTIAL THINGS TO KNOW

## D-SLR Cameras

**Q What is the difference between a D-SLR and a point-and-shoot camera?**

**A** Best for more experienced photographers, D-SLRs are generally more expensive and larger in size than point-and-shoot cameras, and they offer manual settings for a greater creative license.

**Q What types of memory cards do D-SLRs support?**

**A** D-SLR cameras are compatible with a variety of memory card types, including CompactFlash, SD, and SDHC.

**Q What scene modes are available on a D-SLR camera?**

**A** Most models have specific scene modes for situations such as sunset, portrait, landscape, indoor, outdoor, night scene, fireworks, and sports, among others.

**Q Can I shoot video with a D-SLR camera?**

**A** Yes, some D-SLRs have a movie mode that lets you take video clips. More advanced D-SLRs will feature HD video capabilities.

**Q What are shutter priority modes?**

**A** Shutter priority modes are full manual shooting modes that give you control over what types of shots you take. Ones you might come across are Av (aperture priority), Tv (time value), and P (program).

**Q What's the difference between a CCD and CMOS image sensor?**

**A** CCD image sensors record an image using a grid-like field to produce a high-quality image. CMOS image sensors read each pixel individually, which means they capture more light than a CCD sensor.

**Q Does a D-SLR camera have a shutter delay?**

**A** Like a point-and-shoot camera, D-SLRs have a short delay between the moment you press the shutter and when the camera snaps the image; however, this delay is generally shorter. D-SLRs also let you adjust the shutter speed to produce different exposures in your images.

**Q What can I use a D-SLR's LCD screen for?**

**A** LCD screens are designed to provide a live view of the scene you're shooting (like a viewfinder) and also let you review the pictures you've taken. Some LCDs rotate to let you shoot from difficult angles, such as from the ground.

**Q Do I need extra lenses to use a D-SLR camera?**

**A** That depends on your lifestyle and whether you'd want or need to match a lens to a specific shooting situation. If you do, some options are telephoto lenses (to magnify the scene), wide-angle lenses (ideal for larger scenes and landscapes), or macro lenses (for close-up portraits).







# Digital Imaging Glossary

Are you confused about what the lingo on camera boxes means? Use this glossary to help decode the world of digital imaging.

**aperture**—An iris-like diaphragm opening that can expand and contract the lens to let you control the amount of light that passes through it, thus affecting the exposure. The term “f-stop” can be used interchangeably with aperture.

**burst mode**—A camera mode that will let you capture several shots consecutively after pressing the shutter only one time.

**CCD**—A charge-coupled device is a type of image-sensing component. It converts light into energy that can be stored as digital data on your camera.

**depth of field**—The area that is in focus in front of and beyond the subject of your photo.

**digital zoom**—Magnifies an image digitally by cropping it and filling in the rest with interpolated pixels, thus degrading the quality. Even if the numbers are impressive, never choose a camera based on digital zoom.

**f-stop**—See aperture. Smaller f-stop numbers mean a wider lens opening; larger f-stop numbers mean a narrower lens opening.

**ISO**—For digital cameras, the ISO setting measures the sensitivity to light (similar to how it does with film). Digital camera ISO settings, such as 200, 400, and up, should capture photos as if one were using film with such a speed. Lower ISO settings mean you need more light and vice versa.

**LCD**—The screen on the back of the camera that lets you see a live-action view of your subject or your photo after you’ve taken it.

**lens**—The apparatus on the front of the camera that gathers and directs light toward the imaging device. In a digital camera, the lens likely has both an optical and digital zoom.

**megapixel**—Approximately 1 million pixels. The higher the megapixel count, the higher the resolution and the more you can crop, which means (in general) better-quality photos.

**memory card**—Because digital cameras have very little onboard memory, they need flash memory cards to store more than a dozen or so images. The type of memory card you need depends on the make and model of your camera. Some of the most popular memory cards are Secure Digital, MultiMedia Card, Compact Flash, and Sony Memory Sticks. In general, memory cards are quite small.

**noise**—The small statistical variations among pixels that lead to (usually) minor distortions of color in a photo.

**optical zoom**—The camera’s mechanical ability to move the lens physically closer to your subject. With optical zoom, the higher the number (such as 5X or 10X), the better. When choosing a camera, always consider the optical zoom, not the digital zoom. Digital zoom artificially adds pixels.

**resolution**—The number of pixels in an image. The higher the resolution, the more detail and quality in a photo. Resolution is measured in a proportion (such as 2,272 x 1,704).

**shutter**—A mechanism that opens and closes to allow light to pass through the lens. You can usually control the camera’s shutter speed.









**shutter speed**—The length of time a camera’s shutter is open to let light through the lens and hit the sensor, which records the image. This is expressed in fractions of a second: For instance, a shutter speed of 1/250 means that the shutter is open for 1/250th of a second.

**viewfinder**—The small opening in the camera that the user looks through to frame a shot. Some digital cameras don’t have a viewfinder and use only the camera’s LCD to frame the shot.

**white balance**—Light levels are adjusted electronically to ensure whites in a certain environment are pure, leading to more life-like colors. White balance can usually be manually adjusted, too.

## Which Point-&-Shoot Camera Is Best For You?

If you're a little confused about the most important features in a digital camera, you're not alone. In this chart, we compare features from select digital cameras, and we also explain what these features mean.

		<b>Resolution; Optical zoom</b>	<b>Shutter speed</b>	<b>Memory card</b>	<b>LCD size</b>	<b>Battery life</b>	<b>ISO</b>	<b>Movie mode</b>
	<b>What It Means</b>	More pixels mean bigger and clearer prints; Moves the lens closer to your subject	A faster shutter speed will let you snap action photos without blur	Removable card that stores your photos in your camera	The LCD is the screen on the back of the camera	Based on how many shots you can take on a single charge	A higher ISO lets you take better photos in low-light settings	Lets you record short video clips on your digital camera
	<b>Kodak Easyshare M530</b> MSRP: \$129.95* SKU 9765189	12.2MP; 3X	1/8 to 1/4,000 second	SD/SDHC	2.7 inches	N/A	Auto; Manual: 80, 100, 200, 400, 800, 1000	Yes
	<b>Panasonic FP2</b> MSRP: \$159.99* SKU 9767114 <i>See p. 21</i>	14.1MP; 4X	8 to 1/1,600 seconds	SD/SDHC/SDXC	2.7 inches	N/A	Auto; Manual: 80, 100, 200, 400, 800, 1600	Yes
	<b>Sony Cyber-shot W370</b> MSRP: \$229.99* SKU 9757839	14.1MP; 7X	2 to 1/1,600 seconds	Memory Stick Duo/PRO Duo/PRO HG-Duo/SD/SDHC	3 inches	230 shots	Auto; Manual: 80, 100, 200, 400, 800, 1600, 3200	Yes
	<b>Fujifilm FinePix Z700EXR</b> MSRP: \$279.95* SKU 1004713	12MP; 5X	4 to 1/1,000 seconds	SD/SDHC	3.5 inches	NA	Auto; Manual: 100, 200, 400, 800, 1600, 3200	Yes
	<b>Nikon Coolpix S8000</b> MSRP: \$299.95* SKU 9758674	14.2MP; 10X	1 to 1/2,000 second	SD/SDHC	3 inches	210 shots	Auto; Manual: 100, 200, 400, 800, 1600, 3200	Yes
	<b>Panasonic ZS5</b> MSRP: \$299.99* SKU 9767132 <i>See p. 20</i>	12.1MP; 12X	60 to 1/2,000 seconds	SD/SDHC/SDXC	2.7 inches	340 shots	Auto; Manual: 80, 100, 200, 400, 800, 1600	Yes
	<b>Olympus Stylus TOUGH-6020</b> MSRP: \$299.99* SKU 9765213 <i>See p. 23</i>	14MP; 5X	1/4 to 1/2,000 second	SD/SDHC	2.7 inches	200 shots	Auto; Manual: 80, 100, 200, 400, 800, 1600	Yes
	<b>Canon PowerShot SD4000 IS</b> MSRP: \$349.99* SKU 1081283	10MP; 3.8X	1 to 1/2,500 second	SD/SDHC/SDXC/MMC/MMC Plus/HC MMC Plus	3 inches	250 shots	Auto; Manual: 125, 200, 400, 800, 1600, 3200	Yes

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

## Which D-SLR Is Best For You?

As D-SLR prices keep coming down, more photographers are turning to them, both as a first camera and as a trade-up to something better. In this chart, we'll help you sort through some of the features and performance specs of select D-SLR cameras.

		Resolution	LCD size	ISO range	Kit lens	Burst speed	Shutter speed
	What It Means	Image sensor in megapixels; more means a bigger image	Diagonal measurement of the screen on the back of the camera	A higher ISO range will let you take better photos in low-light situations	Standard lens bundled with the camera body	Frames per second (fps) you can shoot while in burst mode	The wider the range, the greater the gamut of long exposures to frozen action
	<b>Nikon D3000</b> MSRP: \$549.95* SKU 9456803	10.2MP	3 inches	100 to 1600	18-55mm f/3.5-5.6	3fps	30 to 1/4,000 seconds
	<b>Sony A330L</b> MSRP: \$549.99* SKU 9342142	10.2MP	2.7 inches	100 to 3200	18-55mm f/3.5-5.6	2.5fps	30 to 1/4,000 seconds
	<b>Pentax K-X</b> MSRP: \$649.95* SKU 9555787	12.4MP	2.7 inches	200 to 6400	18-55mm	4.7fps	30 to 1/6,000 seconds
	<b>Nikon D90</b> MSRP: \$899.95* SKU 9856675	12.3MP	3 inches	200 to 3200	N/A (body only)	4.5fps	30 to 1/4,000 seconds
	<b>Canon EOS Rebel T2i</b> MSRP: \$899.99* SKU 9778635	18MP	3 inches	100 to 6400	18-55mm f/3.5-5.6	3.7fps	30 to 1/4,000 seconds
	<b>Pentax K-7</b> MSRP: \$1,099.95* SKU 9412165	14.6MP	3 inches	100 to 3200	N/A (body only)	5.2fps	30 to 1/8,000 seconds
	<b>Olympus E-3</b> MSRP: \$1,299.99* SKU 8682776	10.1MP	2.5 inches	100 to 3200	N/A (body only)	5fps	60 to 1/8,000 seconds
	<b>Canon EOS 7D</b> MSRP: \$1,699* SKU 9491944	18MP	3 inches	100 to 6400	N/A (body only)	8fps	30 to 1/8,000 seconds

\*Prices listed in this issue are for general reference and may vary from retailer pricing.



# Which Digital Camcorder Is Best For You?

Digital camcorders come in a number of formats: DVD, hard drive, flash drive, MiniDV, and high definition are the most common. By comparing the following digital camcorders, you can determine which recording format and product best fit your style.

		LCD size	Optical zoom; Digital zoom	Recording speeds	Memory card	Digital still resolution	Lines of resolution
	What It Means	Diagonal length of viewing screen	Two methods for magnifying depth of field; optical zoom is better	The speeds a particular camcorder can utilize during recording	Compatible flash card types (cards not included unless noted)	The number of megapixels the camcorder can capture in still images	Number of lines of horizontal resolution; the higher the number, the greater the detail
Flash Drive	 <b>JVC Everio GZ-MS230</b> MSRP: \$269.95* SKU 9731192	2.7 inches	39X; 800X	Ultra/Fine/ Norm/Eco	SD/SDHC	0.3MP	480
	 <b>Canon FS300</b> MSRP: \$299.99* SKU 9739361	2.7 inches	37X; 2,000X	XP/SP/LP	SD	0.45MP	480
	 <b>Insignia NS-DV111080F</b> MSRP: \$349.99* SKU 9769398	3 inches	12X; 10X	N/A	SD/SDHC	10MP	1,080
	 <b>Panasonic HDC-TM55K</b> MSRP: \$529.95* SKU 9921742	2.7 inches	25X; 1,500X	HA/HG/HX/HE	SD/SDHC/ SDXC	5MP	1,080
	 <b>Canon VIXIA HF R11</b> MSRP: \$699.99* SKU 9751699	2.7 inches	20X; 400X	FXP/XP+/ SP/LP	SD/SDHC	1.73MP	1,080
	 <b>Samsung HMX-S10BN</b> MSRP: \$799.99* SKU 1021531	3.5 inches	15X; 180X	N/A	SD/SDHC	5MP	1,080
Hard Drive	 <b>Panasonic HDC-HS60K</b> MSRP: \$699.95* SKU 9921715	2.7 inches	25X; 60X	HA/HG/HX/HE	SD/SDHC/ SDXC	5MP	1,080
	 <b>Sony Handycam DCR-SR88</b> MSRP: \$399.99* SKU 9880262	2.7 inches	60X; 2,000X	HQ/SP/LP	Memory Stick PRO Duo/SD/ SDHC	N/A	480

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

NOTEWORTHY

# Accessories & Services

Prices for digital camcorders and cameras continue to fall as their video and picture quality improves, which is especially good news for first-time buyers or those looking to upgrade. Pairing your new camcorder or camera with the right products will bring you better photography results. Here are some must-have accessories you should consider buying to get the most out of your digital imaging device.



## UV FILTER

- Protects digital camcorder and D-SLR lenses from dust, dirt, fingerprints, and scratches
- Helps you get clearer, more detailed results when you're shooting in bright conditions



## ADDITIONAL LENSES/CONVERTER LENSES

- Extra lenses for D-SLRs and converter lenses for digital camcorders can enhance your results by extending your field of view, reducing glare, and more
- Telephoto lenses enable you to zoom in from far away, wide-angle lenses give you the ability to get a full view even if you're close to the subject, and macro lenses will let you achieve up-close, detailed shots of your photo subject



## EXTRA MEDIA

- Keep spare memory cards on hand so you can snap away without having to worry about running out of storage space
- Consider having several memory cards with smaller capacities instead of one card with a larger capacity; that way, if something goes wrong with one card, you'll still have a backup
- For your digital camcorder, keep more recording media in your bag than you think you'll need, just in case



## EXTERNAL FLASH

- Light up your subjects from greater distances
- Offers better control of lighting conditions when taking photos by directing the angle of the flash



## SPARE BATTERIES & CHARGERS

- Make sure you're never caught without the power needed to capture the perfect moment
- Whether your camera uses proprietary batteries or AAs, keep at least one fully charged spare or set in your camera bag
- An additional battery charger will give you the flexibility to power up your camera batteries anywhere you're headed, even if you're traveling



## REMOTE SWITCH

- A longer cable lets you snap photos without having to touch the camera, which can also reduce camera shake
- May enable the user to lock the shutter for longer exposure times



## DIGITAL IMAGING SERVICES

Once you've set your sights on the camera or camcorder you want, consider taking advantage of the digital imaging services offered by your local CE retailer. Not only can you protect your investment, but you can also discover photography and videography skills that will make your photos and videos picture-perfect.

- D-SLR or Camcorder Service Plan
- D-SLR Training Course
- Camcorder Training Course



## TRIPOD

- Tripods are an easy way to ensure steady video footage
- Pan while recording video in one smooth motion
- Use a tripod and your camera's timer to get a picture of the entire group without needing someone to man the camera
- Keeps your camera steady while you're shooting close-up or distance shots, which can prevent photo blurring



## Home Theater For Students

# Study Up On The Best Devices & Accessories

If you're a conscientious student, you know that you can wear yourself out by studying too much. So, you should equip your residence with the best home-theater gadgets to help you de-stress after a long study session.



### ● HDTVs

- Smaller HDTVs (between 20 and 29 inches) are more space- and cost-effective, and they support 720p HD resolution.
- Some models include surround-sound speakers, USB 2.0 ports, and more.

**Perfect For:** People who want a smaller HDTV that won't take up much room and can still deliver high-quality audio and video.

### ● Home-Theater Furniture

- An HDTV mount will let you hang your HDTV flush to the wall for an aesthetically pleasing look.
- Gaming chairs with built-in speakers and 360-degree swivel adjustability let you customize your gaming experience.
- Floor stands can position your speakers in the right spot to provide the best audio.

**Perfect For:** Anyone who wants an entertainment-friendly apartment.

### ● Home Theater In A Box

- An HTB (home theater in a box) includes at least a full set of speakers (satellite, center, rear, and subwoofer) and the necessary cables to connect them to your home theater.
- Some HTBs also come with Blu-ray Disc players, Wi-Fi connectivity, an FM tuner, or an MP3 player dock.

**Perfect For:** Any student who would like to upgrade his sound system for movie nights.

### ● Internet-Connected Blu-ray Disc Players

- Blu-ray Disc players that feature Internet connectivity can stream online content anytime.
- Many Internet-connected BD players give you access to movies, music, photos, and more.
- In order to connect your Blu-ray player to the Web and your home network, you'll need a model with a built-in Wi-Fi antenna or you'll need to use an Ethernet cable.

**Perfect For:** Any student who wants to access online content on an HDTV.





## Digital Imaging For Students

# Capture Back-To-School Memories

Whether you are a parent who has a child starting kindergarten, a teenager transitioning to high school, or a grad preparing for college dorm life, going back to school is a memorable time. Here, we'll show how digital imaging products can help you capture and share your best-loved memories as they happen.



### Pocket Camcorders

- Easy to carry with you, thanks to a small, lightweight design
- Record HD video up to 1080p
- Simplify video uploading to online sharing sites
- Conveniently view images on computers and HDTVs via a USB connection

**Perfect For:** High school students who want a camcorder that fits in their backpack and can record impromptu video around the lunch table.

### ● Digital Cameras

- Blink detection ensures that you'll never have a group shot where someone is blinking
- AF Tracking helps you take photos of moving subjects
- Record HD video and take stunning images with one device
- Use automatic scene selections to easily achieve the best shot

**Perfect For:** Using preset scene selections to capture the perfect shot of your kids getting on the school bus on their first day.

### ● D-SLR Cameras

- Specialized lenses help you achieve professional-looking results
- Get more control over your photos by manually adjusting advanced camera settings, such as shutter speed, exposure, and depth of field
- On select models, switch to HD movie mode to record video

**Perfect For:** Students who want to creatively capture shots, such as for a photography class.

### ● Digital Photo Frames

- Share an entire photo album using only one frame
- Upload photos from a USB flash drive or memory card to share photos without printing
- Wirelessly stream albums from a computer or the Internet for an even wider array of content

**Perfect For:** Giving college students living in the dorms a way to display photos, rather than letting them get buried on their hard drive.





## Computers For Students

# Stock Up On These School Supplies

You can make back-to-school shopping a more enjoyable and productive experience if you know which tech products are best for you. To prepare, consider whether your student needs a notebook or desktop computer as well as a Web cam and mobile broadband card.



### ● Notebooks

- Many of the latest student-friendly notebooks include 4GB of RAM or more, 15- to 16-inch displays, and at least 250GB of storage.
- Notebooks are typically more fully featured than netbooks; you can read more about how they differ in "Notebooks vs. Netbooks For Students" on page 35.

**Perfect For:** The student who wants to write papers, chat with friends, and manage his social network away from his desk.

### ● Desktops

- Desktops don't have to be basic—you can equip your dorm room with a system that features 6GB of RAM or more, up to 1TB of storage, and an HDMI output. A sizable monitor (20 inches, on average) is available as a separate purchase.
- Grade school students who are learning novice computer skills and playing kid-friendly programs will be able to use a full-sized keyboard and mouse.

**Perfect For:** Students who like the stability of a single desktop workspace and want the flexibility of upgrading components.

### ● Mobile Broadband Cards

- Mobile broadband cards function as an external antenna that retrieves high-speed wireless connectivity from a 3G network, thereby providing Internet access practically anywhere you have service.
- By adding a mobile broadband card to your notebook, you can connect to these networks, as long as you have a subscription.

**Perfect For:** Accessing the Internet at study spots on campus that don't have Wi-Fi.

### ● Web Cams

- Web cams are available as desktop-only, laptop-only, and universal models.
- Certain models feature built-in echo-reducing or noise-canceling technology.

**Perfect For:** Catching up with out-of-state friends and family via video chatting.



## Notebooks vs. Netbooks

# Which Is Right For Students?

As the first day of school approaches, you might wonder if your student has all the tools he needs to succeed. Whether he's heading to junior high, high school, or getting an advanced degree, a portable computer will be an important asset for schoolwork. Now, you just have to decide whether that portable computer will be a netbook or a notebook.



### ● Netbooks: Convenient Connections

- Netbooks can deliver a Web connection using an Ethernet port or Wi-Fi technology. Many models can also use built-in 3G or a mobile broadband card as long as you have service from a mobile provider, giving you uninterrupted access to the Internet.
- Multiple ports and connections, as well as built-in Web cams for videoconferencing, are generally available, but netbooks lack the ability to download lots of applications because of their internal hardware limitations.
- Though they are affordable, compact, lightweight (usually less than 3 pounds), and offer a long battery life, most netbooks don't have an internal optical drive, more than 2GB of RAM, powerful processors, or high-capacity hard drives.

**Perfect For:** An on-the-go student who relies heavily on Web applications and other online activities.

### ● Notebooks: Portable Power

- Notebooks are comparable to desktop computers in regard to their capabilities. They'll usually have 2GB or more of RAM and 160GB or more of storage as well as the same types of multimedia features and Web connections as netbooks.
- Most notebooks offer screens between 13 and 17 inches (measured diagonally) and weigh between 5 and 10 pounds. Because of their additional features and more powerful hardware components, notebooks are more expensive than netbooks.
- Notebooks are ideal for installing multiple applications, playing multimedia such as music and videos on disc, and working with more than one program at a time.

**Perfect For:** A student who needs portability coupled with the capabilities of a desktop computer.





## Portable Devices For Students

# Get A Move On

Advice, support, love, and maybe even some spending cash—all good gifts to give a budding student, whether she's toiling away in grade school or college. To that end, add the following portable devices to the list of resources that students can benefit from.



### ● GPS Devices

Sending a student to a university in a strange city is scary for everyone concerned. GPS devices ease the worry by:

- Providing turn-by-turn directions in unfamiliar surroundings
- Detailing where local hospitals, libraries, stores, and other noteworthy spots are located
- Offering alternative routes to avoid congested traffic
- Supplying current weather conditions during trips home

**Perfect For:** First-year college students heading to greener but less-familiar pastures.

### ● MP3 Players

Beyond playing digital music, some MP3 players support:

- Downloading dictionary, thesaurus, calculator, and other education-related apps
- Playing audio and video tutorials, lectures, podcasts, speeches, and audio books
- Recording homework reminders, term paper ideas, notes, and lectures
- Ability to view and transfer word documents and other files (apps typically required)
- Wi-Fi Web browsing to send emails, instant messages, and conduct research

**Perfect For:** Supplementing traditional education tools while adding entertainment and communication benefits.

### ● Music Services & Download Cards

Various prepaid download cards and professional music services provide:

- Three-, six-, and 12-month unlimited music-streaming options
- Up to \$100 of movie, TV, music, game, audio book, and other downloads
- Professional in-home and online MP3 player setup and training
- MP3 player diagnostic services
- Ripping original CDs to digital files
- In-car MP3 player installation

**Perfect For:** Inexperienced MP3 player owners needing A/V content and help putting it to use.

### ● Headphones

Headphones may seem one-dimensional, but for students, various models:

- Include a built-in mic to take incoming calls, record voice memos, chat online, and make free VoIP calls
- Feature exercise-specific designs that are suitable for student-athletes
- Integrate noise-cancelation technology to block ambient noise while studying and help prevent bothering a dorm roommate when playing music, games, or movies

**Perfect For:** Creating a quiet study atmosphere and giving others around you the same.



## Gaming, Media & More For Students

# Take Tech Back To School

Today's student is high-tech, and technology provides new and different ways to learn, stay organized, and get from place to place. Whether it's scribbling notes with a smart pen or zipping across campus on an electric bike, your student will benefit from these techno tools.



### ● Smart Pens

- When you take notes with a smart pen, it records the speaker's voice, too. Complementary paper will also match your written notes to given places in the recording.
- Upload several gigabytes of your notes to your computer for a digital record of your lectures.
- You'll want ink cartridge refills on hand as well as a charging cradle accessory.

**Perfect For:** Easily keeping thorough, reviewable records of your class lectures and notes.

### ● Electric Vehicles

- An electric bicycle or scooter can help you zip from point A to point B without breaking a sweat.
- Electric scooters offer a low profile and foldable features for easy storage.
- Make sure you spring for a helmet, a comfy seat, safety lights, removable bags and baskets, a sturdy lock, and more.

**Perfect For:** A commute that's just a couple of miles too long to traverse on foot.

### ● eReaders

- With an eReader, you can carry a multitude of texts with you on a device that weighs next to nothing.
- You can download additional books in a jiffy if your eReader has Wi-Fi or 3G functionality.
- Don't forget a slick sleeve or jacket to protect your eReader and make it look stylish.

**Perfect For:** A student who wants to read many books but doesn't want to carry them all at once.

### ● Game Consoles

- With many game consoles, staying in touch with family and friends or even browsing the Internet is easy.
- Some handheld gaming consoles offer productivity functionality as well as games.

**Perfect For:** Taking a well-deserved study break and checking in with loved ones.





## Small Appliances For Students

# Not For The Backpack

Scholastic duties consume a good chunk of a student's life, but that doesn't mean eating, cleanliness, and personal hygiene don't have their rightful place, as well. These small appliances can help your student stay nourished, tidy, and looking tip-top.



### ● Personal Care Items

The chaotic nature of college life translates to precious few minutes to devote to physical appearances. Help out with a:

- Curling iron, roller set, hair dryer, or hair clipper
- Electric shaver, complete with accessories and replacement parts
- Heart rate monitor or pedometer to promote fitness
- Shoulder, neck, or foot massager to whisk away tension

**Perfect For:** Soon-to-be grads about to hit the interview trail.

### ● Compact Microwaves

Want to give a student a gift that will keep on giving? Buy a microwave. Select models feature:

- Reheat and defrost settings for specific food types
- Compact designs that require little space
- Optimal settings for beverages, popcorn, vegetables, pizza, and more
- Convection-like cooking abilities
- Multiple power levels to adjust to different types of cooking

**Perfect For:** A dorm room dweller who regularly works into the early morning and requires sustenance.

### ● Compact Fridges

What good is a microwave without food to cook in it? Compact fridges provide:

- Storage for tall bottles
- Racks that dispense soda cans
- Freezers
- Automatic and manual defrosting
- Steel exteriors that prevent fingerprints and smudges
- Reversible doors
- Scratch-resistant tops doubling as storage space
- Vegetable and fruit crispers

**Perfect For:** Keeping food on hand when eating at the cafeteria or dining out isn't an option.

### ● Vacuums

A clean dorm room will probably never rank as a top priority among college students, but when it's time to spruce up, various vacuums:

- Specialize at cleaning carpets, rugs, and hard floors
- Bundle attachments to clean stains, stairs, crevices, and corners
- Clean wet and dry spills
- Convert to handheld size for easy transport
- Feature cordless operation

**Perfect For:** Dorm room and off-campus apartment dwellers who need to clean up a variety of messes.





## Academic Accessories

# Gadgets For A Successful Semester

Now that you've stocked up on the essential CE devices for the upcoming school year, you need the best accessories to go with them. Here are some of our recommendations.



**Sound bar.** A sound bar can create an instant, compact movie theater right in your dorm room. Invite friends over for a movie night or to watch the rivalry football game.

**TV stands.** A TV stand can support your TV and store your media. The variety in styles means you can find one that is practical for any sized room.

**Memory cards.** Keep from running out of digital space by having spare memory cards. They can easily travel with your camera to document unexpected moments or provide illustrations for your project.

**Tripods.** Because you won't need anyone to hold the camera, tripods are a perfect way to include every member of the group on the latest video assignment. These will keep your video smooth, steady, and ready for a top-notch grade.

**Printer.** An all-in-one printer will prevent stressful late-night trips to the computer lab. These will suit the needs of the busiest students, with scanning, faxing, and copying capabilities.

**Web cam.** Share the joy of your good grade or the stress of a bad day with family and friends using a Web cam. Video chatting will let you stay in touch when going home isn't an option.

**GPS.** When traveling on a spontaneous weekend road trip, keep your directions within reach with a GPS. Some models can even keep you updated on weather and traffic.

**Headphones.** MP3 player earphones let any student tune out distractions in the loud computer lab, escape with the right music, and fall deep into the books.

**Game console remote control.** You can use a remote control with your game console to navigate menus and more, allowing you to enjoy every second of that necessary study break.

**Gaming headset.** Keep your roommate happy by containing your gaming noise with a hands-free headset. These can enhance what you can hear with noise-canceling technology and let you plan your next move by consulting your team.

BY AMANDA BOUC



# Epson Stylus NX420 & WorkForce 520 Printers

**Powerful Performance, At A Price That's Sure To Please**

Some printers perform admirably but sacrifice features, speed, and the bottom line to do it. That's not the case with the Epson Stylus NX420 (\$99.99; print/copy/scan/photo) and WorkForce 520 (\$129.99; print/copy/scan/fax) from Epson ([www.epson.com](http://www.epson.com)). These affordable all-in-ones quickly deliver lab-quality prints while providing a host of practical, real-world features for the home and small business.


## Easy Wireless Performance

With Easy Epson Wi-Fi, you can connect your all-in-one to multiple PCs in minutes via a certified 802.11n connection—the fastest Wi-Fi speed available. Use the NX420 to wirelessly access photos and print from your memory card—all without a PC. And, with the WorkForce 520's extremely fast fax, you can receive faxes at up to three seconds per page.

## Affordably Efficient

The world's fastest all-in-one in its class<sup>1</sup>, the WorkForce 520 offers amazing print speeds—15 ISO ppm (black) and 5.4 ISO ppm (color). And, it includes a 30-page Auto Document Feeder, so you can quickly print, scan, or fax stacks of pages. Both products make it easy to save money with individual ink cartridges—replace only the cartridge you need. Plus, with the WorkForce 520's dual Black cartridge support, you get more prints and spend less time changing cartridges.<sup>2</sup>

## A Side-By-Side Comparison



	Epson Stylus NX420	Epson WorkForce 520
Print	x	x
Copy	x	x
Scan	x	x
Fax		x
ISO Print Speed* Black/Color	6.4 ppm/3.3 ppm	15 ppm/5.4 ppm
PC-Free Borderless Photos	x	
Lab-Quality Photos	x	x
LCD Screen	1.5-inch color	
Built-In Memory Card Slots	x	
Wireless Printing	802.11n	802.11n
Epson Easy Wireless Setup	x	x
Manual Two-Sided Printing	x	x
Scan To Email and PDF	x	x
Individual Ink Cartridges	x	x
Instant-Dry Ink	x	x
Operating Systems**	Windows and Mac	Windows and Mac
Perfect For	Home and student use	Small businesses, home use

\* ISO ppm is based on international standard for measuring print speed. Black and color speeds are determined in default, single-side mode in accordance with ISO/IEC 24734. Actual print times will vary based on system configuration, software, and page complexity. See [www.epson.com/printspeed](http://www.epson.com/printspeed) for more information.

\*\*Windows 7/Vista/WinXP/WinXP 64-bit; Mac OS X 10.4.11/10.5.x/10.6.x

## The Proof Is In The Prints

Whether printing a college lab report, quarterly budget, or summer vacation photos, your Epson all-in-one will give you smudge- and water-resistant photos and documents that you can handle immediately after printing, thanks to Epson's instant-dry DURABrite® Ultra Ink. Take advantage of manual, two-sided printing<sup>3</sup> to reduce your paper costs. Or, use the NX420's memory card slots, 1.5-inch color LCD, and automatic image-editing features to print brilliant borderless photos without a computer.

<sup>1</sup> Fastest in its class; 50% faster than the competition printing black text in default, single-side mode, in accordance with ISO/IEC 24734. Compared to ink jet all-in-ones priced at \$199 or less, as of September 2009, based on independent testing.

<sup>2</sup> Two Black cartridges allow about twice as much black printing as compared to printing with a single Black cartridge.

<sup>3</sup> Some applications and/or functions, like two-sided printing, may not be supported by Mac.



## HOW TO BUY

# A Notebook

## What You Need To Know



In our increasingly mobile society, notebook computers have become more popular than ever before. There's an amazing variety of available notebook systems, so we'll tell you what you need to know when you're shopping for one.

**Processing power.** Your machine's CPU is literally its core, and an underpowered processor will slow you down. Especially in portables, though, the optimum processor generally requires a balance of speed, power, energy consumption, and heat production. You want as much of the first two as you can get and as little of the last two as possible. Chipmakers offer CPUs designed specifically to provide that balance. Intel's new 2010 Core processors, for example, offer an impressive combination of speed and power, coupled with low energy consumption.

Your machine's  
CPU is literally its  
core . . .

**Memory.** When it comes to memory, get the most you can afford and that your notebook can handle. In general, consider 2GB a minimum, and try for 4GB. If you do any video editing, get even more than that, and consider upgrading from DDR2 to faster and more energy-efficient DDR3 memory. It's fairly easy to add more RAM later, so keep that in mind if your needs change down the road.

**Storage.** With storage, you have three criteria to consider: size, speed, and price. In general, get the largest-sized drive you can afford. Again, your lifestyle can help you decide: If you use your notebook to store movies, music, or images, size becomes paramount. If you use your notebook for business and hate wasting time while the machine retrieves documents, speed may be more important than size. In that case, consider a solid-state drive—but be prepared to pay twice as much for half the capacity.

. . . consider: size,  
speed, and price.

**Portability.** Your computing, work, and travel preferences should help you decide which system best fits your needs. Small, ultra-thin machines are easiest to carry in a backpack or purse but may not offer large displays or enough cooling to support the more powerful processors. More powerful laptops tend to be bulkier and weigh a bit more but offer the power of a desktop model.

. . . small, ultra-thin  
machines are eas-  
iest to carry . . .

# Get To Know Your Wi-Fi Alphabet

## A Breakdown Of The Standards

You can't beat the convenience of a wireless home network for connecting your computers and other electronics to the Internet. If only choosing a Wi-Fi router, available in wireless G, N, and N-Plus options, was as simple as connecting to a Wi-Fi network. Here, we'll break down the differences between the types of available wireless routers, so you know which one best fits your needs.



### Wireless G

A wireless G router operates using the 802.11g Wi-Fi signal standard, which can deliver data at up to 54Mbps. It's an old standard that transmits signals nearly six times slower than the new wireless N standard.

**Compatibility.** Devices with an 802.11b or 802.11g Wi-Fi adapter can send and receive data with a wireless G router, because both standards run on the 2.4GHz spectrum.

**Router price range:** \$35 and up

### Wireless N

Also known as 802.11n, wireless N routers support data transfer speeds up to 300Mbps. Besides faster downloads and transfers, the speed increase means that the network is fast enough to stream videos and music. With a wireless G router, the connection may occasionally drop out and create a choppy viewing or listening experience.

**Compatibility.** All wireless N routers operate on the 2.4GHz frequency, so the signal is backward-compatible with any device that has an 802.11b/g/n adapter. You can also invest in a dual-band wireless N router, which sends out signals over both the 2.4GHz and 5GHz frequencies, to help you avoid interference that can slow down your transmission speeds.

**Router price range:** \$50 and up

### Wireless N-Plus

These wireless N routers feature technology that extends signal range and reliability. The maximum speed is still 300Mbps, but the increased signal strength will improve download speeds for PCs that are located far away from the router. The extra range comes from the inclusion of multiple antennas and MIMO (Multiple Input, Multiple Output) technology.

**Compatibility.** Same as wireless N routers.

**Router price range:** \$100 and up

# On To The Next Class

## Built For College Students

College can be one of the most life-changing phases in life. But, equipping a student with a laptop that has a battery that can last through mid-terms and plenty of hard drive space to save their important documents will make their academic experience more productive and less stressful. With this in mind, Best Buy's Next Class line of laptops ([www.bestbuy.com](http://www.bestbuy.com)) was developed based on student needs.

Four laptops from Asus, HP, Dell, and Sony were customized in terms of design and specifications to fit a student's campus life. Here's a quick overview of what each model has to offer.

### Sony VAIO VPCF12AFM/H

\$999.99

SKU: 9987925

- Intel Core i3 processor; 16.4-inch display; 4GB RAM; 500GB hard drive
- With an 8-in-1 memory card reader, you can transfer photos and data to your laptop with ease
- Includes a Blu-ray Disc player (that also supports DVDs and CDs), so you can watch HD movies on the widescreen display



### HP Pavilion dv5-2045dx

\$799.99

SKU: 9983204

- Intel Core i3 processor; 14.5-inch display; 4GB RAM; 500GB hard drive

### Dell Studio s155-5691MSL

\$799.99

SKU: 9947084

- Intel Core i3 processor; 15.6-inch display; 4GB RAM; 500GB hard drive

### Asus K501J-BNC5

\$699.99

SKU: 9964479

- Intel Pentium Processor T4500; 15.6-inch display; 4GB RAM; 500GB hard drive



All of the Next Class notebooks come with Microsoft Office Home & Student 2010. With other Office 2010 suites, you can boost your productivity on additional computers. To learn more, turn to page 49.







# A Laptop For The Next Class

## Sony® VAIO® F Series Laptop



What happens when you combine student-inspired design ideas, the support of a popular CE retailer, and Sony's dedication to manufacturing quality computers? The Next Class Sony VAIO VPCF12AFM/H laptop (\$999.99; [www.bestbuy.com](http://www.bestbuy.com)), which is exclusively available at Best Buy. If you're a student in search of a laptop with the latest multimedia capabilities, by-your-side tech support from Sony, and a lot of high-performing components under the hood, the VPCF12AFM/H is a good match for your lifestyle.

Sony VAIO  
VPCF12AFM/H laptop  
\$999.99 | [www.bestbuy.com](http://www.bestbuy.com)

### Media Multitasking

With an easy-to-learn interface and built-in organization features, the Media Gallery will help you both manage and enjoy your collection of music, photos, and videos. For instance, the SensMe™ Technology automatically analyzes your music library by style and content and it provides you with a new playlist that you don't have to spend hours to compile. You can experience impressive HD entertainment when you take advantage of the extra-wide 16.4-inch LCD for portable viewing or the HDMI output port to kick back for HDTV enjoyment when you use the VPCF12AFM/H's HD Blu-ray Disc drive.

### Networking & Design

The VPCF12AFM/H is well-equipped to keep you connected: it features Bluetooth and 802.11 b/g/n Wi-Fi connectivity. Sony added a soft backlight behind the keyboard, which includes a convenient 10-key numeric pad, for low-light scenarios. The Motion Eye camera with face-tracking technology enables real-time chatting with friends and family back home whenever and wherever you take your laptop.

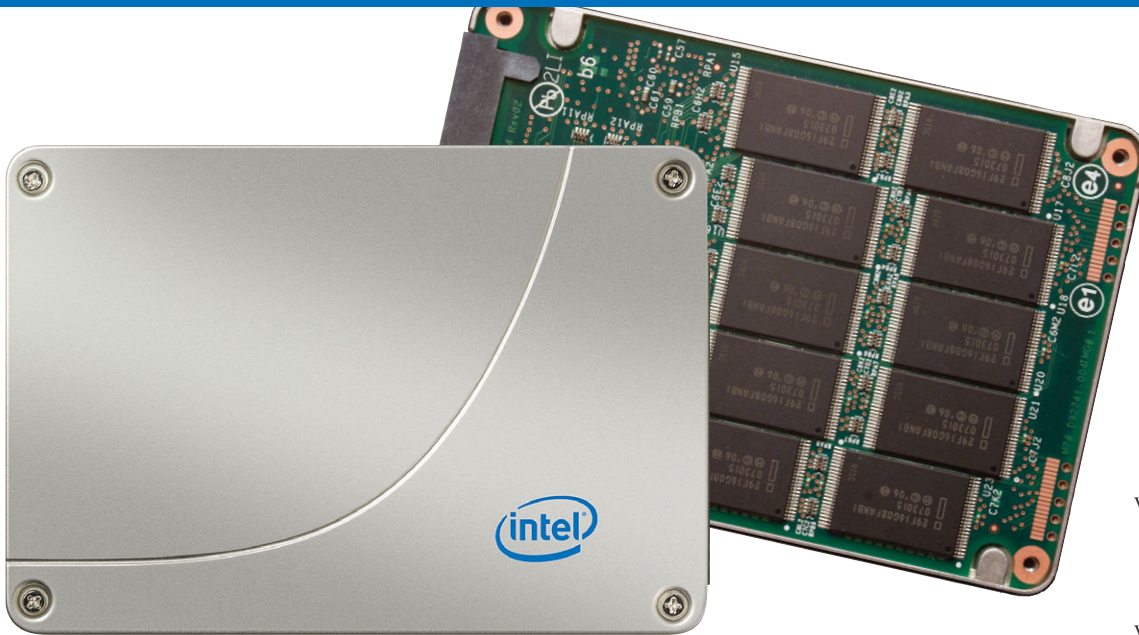
### Software & Support

And, the software package is fully featured with the following: Windows 7 Home Premium, Sony's exclusive Media Gallery and PMB VAIO edition software, a 30-day trial of Norton Internet Security 2010, and Microsoft Office 2010 Starter. On top of this, Sony added its ASSIST button, a tool that helps you troubleshoot computer problems. You can also use Sony's in-home or international tech support services while the laptop is under warranty.

### Spec It Out

For quick reference, here's what the Next Class Sony VAIO VPCF12AFM/H laptop has to offer:

- Intel Core i3 processor (2.26GHz)
- 16.4-inch widescreen LCD screen
- 500GB hard drive
- 4GB DDR3 RAM
- Nvidia® GeForce® 310M (512MB dedicated)
- BD/DVD±RW/CD-RW drive
- 802.11b/g/n compatible
- Three USB ports and one HDMI output



Intel X25-M (80GB)

\$229.99

[www.intel.com/go/ssd](http://www.intel.com/go/ssd)

Intel X25-V (40GB)

\$119.99

[www.intel.com/go/ssd](http://www.intel.com/go/ssd)

# Smart Performance Where You Need It Most

## Intel Solid-State Drives

There's no doubt that Intel ([www.intel.com/go/ssd](http://www.intel.com/go/ssd)) provides a performance edge when it comes to PC processors. Its latest Core i3, i5, and i7 CPUs represent the cutting-edge choice in today's laptops and desktops.

However, a fast processor is only part of the equation. When you're booting your computer, launching programs, or loading personal files, your CPU spends a good deal of time waiting for your hard drive to send it the data it needs. Add in the cumulative delays from a traditional hard drive's file fragmentation, and your highly capable system soon starts to feel as sluggish as your last one.

Fortunately, Intel has the storage performance angle covered, too. The company's silicon wizardry has resulted in a remarkable line of mainstream SSDs (solid-state drives). The X25-M or X25-V SSDs are reliable, high-performance replacements for traditional hard drives as the computer's main storage component, and in comparison, they provide fast bootups, application launches, and overall system responsiveness. In fact, Intel SSDs deliver 56% faster performance than traditional hard drives.\*

### Key Benefits

- Unlike a hard drive, SSDs don't spin and have no moving parts. This not only helps them to be more impact-tolerant and reliable than a traditional hard drive but also makes them cooler, quieter, and easier on notebook battery life.
- Speaking technically, Intel's SSDs are acclaimed for having some of the fastest random reads and writes. This speeds up most of your operating system's background tasks, giving your computer a noticeably more agile feel.
- In a Windows 7 PC, Intel SSDs' support for the new TRIM command ensures that over time, they continue to save data as fast as they did when new.
- Even though SSDs cost more per gigabyte than hard drives, the dramatic performance boost you'll realize by installing an SSD more than justifies the price premium.

\* As measured by PCMark\* Vantage\* HDD sub-test

Performance tests and ratings are measured using specific systems and/or components and reflect approximate performance of Intel products as measured by those tests. Any difference in system hardware, software, or configuration may affect actual performance. Buyers should consult other sources of information to evaluate performance of systems or components they are considering purchasing. For more information on performance tests and performance of Intel products, visit [www.intel.com/performance](http://www.intel.com/performance).

# From Notebook To HDTV

## Intel's Wireless Display Technology

Intel's ([www.intel.com](http://www.intel.com)) Wireless Display technology is featured on a number of laptops based on Intel Core processors, and comes standard on Best Buy Blue Label notebooks with a Netgear Push2TV Adapter. It's capable of wirelessly streaming online media, Web sites, music, photos, and video content from your notebook to your HDTV. The key to the technology is that it is push-a-button simple to use.

### The Wireless Display Trio

These are the components you'll need to enjoy content from your laptop on your HDTV. The setup entails connecting the Netgear Push2TV Adapter to your HDTV using the included HDMI cable, powering the device, selecting the appropriate HDTV input, and then pushing the dedicated Wireless Display button on your notebook.

#### Netgear Push2TV Adapter

- For those who don't have a Blue Label notebook, the adapter can be purchased separately.
- To connect a Wireless Display-capable notebook to multiple HDTVs, you can purchase additional adapters.



### Intel Wireless Display-Capable Notebooks

	Intel Core Processor Type	Netgear Push2TV Adapter	Screen size (inches)	Hard drive size; RAM	Dimensions (HxWxD) (inches)
<b>Asus U52F-BBI5</b>					
SKU: 9963892	Intel Core i3 350M	Sold separately	15.6	500GB; 4GB (DDR3)	1.3x15.2x10.12
<b>Asus U43F-BBA5</b>					
SKU: 9964036	Intel Core i5 450M 2.4GHz up to 2.66GHz with Turbo Boost	Sold separately	14	640GB; 4GB (DDR3)	1.25x13.54x9.49
<b>Samsung R580-11</b>					
SKU: 9972957	Intel Core i3 350M	Sold separately	15	500GB; 4GB (DDR3)	9.41x13.54x1.2 to 1.49
<b>Dell 15z-2249CPN</b>					
SKU: 9684515	Intel Core i5 430M 2.26GHz up to 2.53GHz with Turbo Boost	Included	15.6	500GB; 4GB (DDR3)	1x15x9.9
<b>Sony VPCEB23FM/BI</b>					
SKU: 9979978	Intel Core i3 350M	Sold separately	15.5	320GB; 4GB (DDR3)	1.22x14.56x9.77
<b>Sony VPCA24FM/W</b>					
SKU: 9980021	Intel Core i3 350M	Sold separately	14	500GB; 4GB (DDR3)	1.07x13.6x9.39
<b>Sony VPCEA24FM/L</b>					
SKU: 9987752	Intel Core i3 350M	Sold separately	14	500GB; 4GB (DDR3)	1.07x13.6x9.39
<b>Sony VPCEB26GM/BI</b>					
SKU: 9999605	Intel Core i5 430M 2.26GHz up to 2.53GHz with Turbo Boost	Sold separately	15	500GB; 4GB (DDR3)	1.22x14.56x9.77
<b>Sony VPCS111FM/S</b>					
SKU: 9701289	Intel Core i5 430M 2.26GHz up to 2.53GHz with Turbo Boost	Included	13.3	500GB; 4GB (DDR3)	1.2x13x9
<b>Toshiba A665-S6050</b>					
SKU: 9988697	Intel Core i3 350M	Sold separately	16	500GB; 4GB (DDR3)	1.18 to 1.48x14.98x10
<b>Toshiba R705-P25</b>					
SKU: 1007392	Intel Core i3 350M	Sold separately	13	500GB; 4GB (DDR3)	0.66 to 1.01x12.44x8.94
<b>Toshiba E205-S1904</b>					
SKU: 9701191	Intel Core i5 430M 2.26GHz up to 2.53GHz with Turbo Boost	Included	14	500GB; 4GB (DDR3)	1.2x13.7x9.6



# Accessorize Your PC

## With Fresh Peripherals From Microsoft

When you purchase a new PC or laptop, upgrading your mouse and other accessories at the same time can make a big difference in how much you enjoy your new computing experience. If you get the advice you need, you'll end up with the cool features you want and be able to go home happy and confident in your purchase.

Microsoft Wireless Mobile Mouse  
\$29.99 | [www.microsoft.com/hardware](http://www.microsoft.com/hardware)



Wave



Geode



Folk

### Why Upgrade?

Compatibility is one of the best reasons to upgrade your accessories when you purchase a new desktop, laptop, or netbook. Unfortunately, your old gear may simply be incompatible with your new computer. The latest PCs generally lack parallel printer ports or PS/2 mouse and keyboard ports, which can preclude using your old accessories. And according to Microsoft's ([www.microsoft.com](http://www.microsoft.com)) research, one in four people who go home without purchasing accessories return to the same store to buy them later.

### What's New & Why You Want It

You might be surprised at how much mice, keyboards, Web cams, and other accessories have changed in the last few years. For example, many of the latest models from Microsoft may include ergonomic designs that put your comfort first, the latest wireless technologies that sip power and untether your keyboard and mouse like never before, HD-resolution recording capabilities, new sensors that let you use your mouse on nearly any surface, and the list goes on. The associates at your local CE retailer are well-versed in all the latest technologies and can help you find the peripherals that will complement your new PC or laptop.

### Expectations, Meet Reality

Today's PCs and accessories all include so many specs, features, and technologies that it might be hard to choose the right one. Microsoft has found that, as a result, you need to steer away from making purchases based on price more than on features and quality. However, if you are well-educated about a peripheral's core technologies and extra benefits compared to the budget models, you will find a model that suits your needs, leave happy, and remain pleased with your purchase for years to come.

# Buy Microsoft Office 2010 Your Way

## More Features & More Purchasing Options



*Whether in the office, the classroom, or the living room, Microsoft Office ([www.microsoft.com](http://www.microsoft.com)) helps you communicate, execute, and connect. Office 2010 adds exciting new features and offers multiple purchasing options, giving you more than one way to get exactly the version you need.*

### Traditional Full Package Product Purchases

You can purchase any of three versions of Office 2010 in a traditional package that includes a disc and product key. Office 2010 Home and Student is licensed to one household and can be used on up to three PCs, the Home and Business version is licensed to one user for up to two PCs, and Office 2010 Professional is licensed to one user on up to two PCs and one mobile device. Office 2010 Professional also includes one year of technical support.

### Product Key Card Purchases

If your new PC includes a preloaded version of Office 2010, you can simply purchase the appropriate Product Key Card to activate that installation quickly and easily. Product Key Cards only include a product key; these do not come with a disc. A copy of Office 2010 purchased with a Product Key Card is licensed only on one PC.

### Your Suite, Your Choice

Office 2010 is available in three versions, and each can be purchased in two different ways. It's your choice: Select your version, decide on your purchase option, and you're on your way to more efficiency, more productivity, and more fun.

### Next Class Laptops

With its Next Class laptops, Best Buy listened to students and teamed up with leading manufacturers to create models specifically designed for them. Next Class laptop price includes Microsoft® Office Home and Student 2010 as well as long-lasting batteries, larger displays, and other features that match a student's needs. For more information on the Next Class laptops, see page 44.



# Mobile Broadband Methods

## Reach Out & Touch The Web

At home, wireless connectivity isn't a problem for your computer. After all, you've got a nice Wi-Fi network set up to handle your Internet access cable-free. But what if you want to log on from the Interstate? Or a movie theater? Or a hotel room without Wi-Fi?

Mobile broadband devices let you access the Web when your portable computer is outside the range of a Wi-Fi network. They give your laptop, tablet, or other mobile PC a link to your cell phone service provider's wireless network, such as 3G. Note that you'll need a data plan for the following methods.



### Mobile Hotspot Devices

When your hotel room is your temporary office, why not bring your own hotspot? A gadget like this provides a small wireless LAN for a handful of your Wi-Fi devices. It not only connects four or five devices to each other but also to the Internet via a cell data network over 3G, 4G, CDMA EVDO, HSPA, or another protocol.

- Usable range of about 25 to 30 feet or more.
- May run on a rechargeable battery.
- Some support features such as built-in GPS and microSD cards.
- Provides encryption for security.

### USB Mobile Broadband Cards

Your job takes you all over the place: Mexico, Moab, a cow pasture in Wisconsin. But no matter where you are, you need to be able to VPN back to the office. With a USB mobile broadband card and provider service in your area, you'll almost always be able to get online.

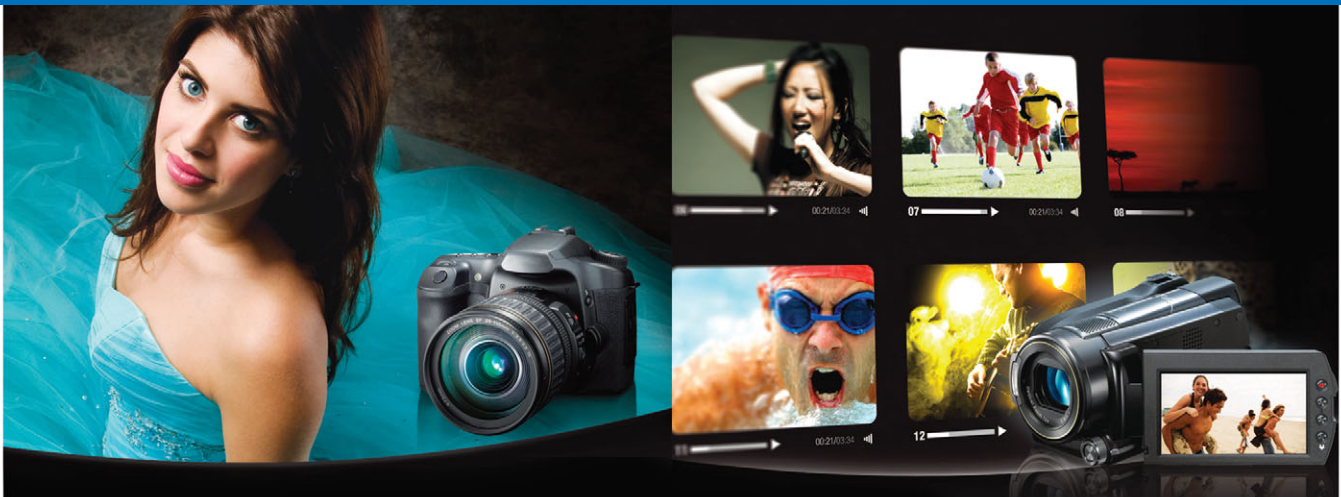
- Can be dual-band or tri-band for use as you travel.
- Some have microSD slots for data storage.
- Cards support existing 3G or newer, faster 4G data service networks.

### Integrated Mobile Broadband

You're trying to simplify your life. You don't want extra doohickeys sticking out of your next portable computer. You just want built-in broadband.

- Some laptops, netbooks, and tablets include built-in broadband access.
- Hidden antennas won't mar your device's aesthetics.
- Various devices support WiMAX (4G), 3G, HSPA, EVDO, and others.





# Edit Back-To-School Memories

## Corel Photo & Video Pro X3 Bundle

We like to say that two is better than one, and software packages should be no exception. The Corel Photo & Video Pro X3 Bundle (\$129.99; [www.bestbuy.com](http://www.bestbuy.com)) merges the photo- and video-editing capabilities of Corel's professional-quality software suites, PaintShop Photo Pro X3 and VideoStudio Pro X3, to meet your multimedia needs. Whether you're a growing photographer, video producer, or both, the Photo & Video Pro X3 Bundle is the ideal complement to your D-SLR camera and your HD camcorder.



Corel Photo & Video Pro X3 Bundle | \$129.99 | [www.bestbuy.com](http://www.bestbuy.com)

### Edit Your Media

Designed to enhance your photos and videos, the Photo & Video Pro X3 Bundle provides the tools to quickly fix and process photos and video or take the time to change every detail with advanced editing tools. For example, you can eliminate unwanted visual objects from your photos with the Smart Carver feature or access studio-quality effects and templates for your video projects.

### Share Your Media

When you're ready to share your photos, you can use the Project Creator to generate slideshows, cards, calendars, and more. You can also share your photos and videos online by uploading them to social media sites, such as Facebook, Vimeo, and YouTube, or burning them to disc. The bundle includes enhanced HD authoring for burning HD movies to DVD and Blu-ray Disc.

### What's In The Bundle?

Now that there are cameras and camcorders that can both take photos and record video, you need a single software solution that can work with all of your media. Here are some of the Corel Photo & Video Pro X3 Bundle's key features that can handle your photo and video needs.

	Photo Features	Video Features
<b>Workflow &amp; Performance</b>	RAW Lab and Easy Batch Processing	Hardware acceleration and quick-launch modes
<b>Editing Tools</b>	Smart Carver, Object Extractor, on-image text editing	Enhanced title effects and multitrack overlay effects
<b>Effects &amp; Templates</b>	KPT plug-in filters, Corel Painter Photo Essentials 4	RevoStock templates, real-time effects, and music from SmartSound
<b>Project Sharing</b>	Photo- and video-sharing to Flickr, Facebook, and YouTube	Share clips in HD or on Vimeo.com and output to Blu-ray Disc

# Match A Computer To Your Needs

## With VISION Technology From AMD

Purchasing the right computer doesn't have to be an overwhelming task. Yet many consumers find themselves with a machine that doesn't quite match their needs. So how can you be sure the system you buy is the right fit for you?

Start by deciding what type of computer user you are. Do you simply surf the net

and watch movies online? Do you share photos and videos? Do you create home-made movies? Your answers will help determine your needs.

Next, instead of trying to translate the type of experience you'll get from different processors or graphics cards, you can look for a computer bearing the

VISION logo from chip maker AMD ([www.amd.com/VISION](http://www.amd.com/VISION)). The logo describes a PC's capabilities in terms of what experiences and activities you can expect to enjoy on the system, not in terms of what components are within.

Here's a closer look:



## AMD VISION Notebooks & Desktops

From all-in-ones to desktops to notebooks, you'll find a variety of computers that feature AMD's VISION Technology. Here's a look at what's currently available.



### Everyday Computing

#### Features

- Watch DVD movies and online videos
- Photo viewing
- Casual gaming
- Rich Internet browsing
- Listen to music



### High-Definition Computing

- Watch HD Blu-ray Disc movies
- Photo editing
- Convert CDs to MP3s
- Mainstream gaming
- Watch live TV on your PC
- Multitasking



### High-Performance Computing

- Create and edit movies
- Edit and mix music
- Advanced photo editing and 3D gaming
- Record TV shows
- Advanced multitasking



### Maximum Computing

- Maximum control
- Massive headroom
- Platform overclocking
- Create and edit HD movies
- Media player video conversion
- Cutting-edge gaming
- Megatasking

#### Computers

- Dell Inspiron 501R notebook
- Dell Inspiron 570 desktop
- Gateway MS 11/NV53A notebook
- Gateway ZX4300-01E all-in-one computer
- HP 300-120 all-in-one computer
- HP HPE210y desktop
- HP HPE235f desktop
- HP P6510y desktop
- HP P6520y desktop
- HP P6540y desktop
- Toshiba L645D-25.1 notebook
- Toshiba L655D-24 notebook

- Dell Inspiron 570 desktop
- HP dv5-2035dx notebook
- HP dv6-3025dx notebook
- HP dv6-3055 notebook
- HP dv7-4065dx notebook
- HP P6510y desktop
- HP P6520y desktop
- HP P6540y desktop
- Toshiba L645D-25.1 notebook

- HP HPE210y desktop
- HP HPE235f desktop

- Asus CG1330-05 desktop



ASUS Desktop  
featuring  
VISION Black  
Technology

Additional hardware (e.g. Blu-ray drive, HD or 10-bit monitor, TV tuner) and/or software (e.g. multimedia applications) are required for the full enablement of some features. Not all features may be supported on all components or systems—check with your component or system manufacturer for specific model capabilities and supported technologies.



## ESSENTIAL THINGS TO KNOW

# Network Streaming

## Q What is streaming?

A Streaming is playing a video or audio file that resides on the Internet or on a different computer across a network. Internet radio, video sharing, and movie rental sites use streaming.

## Q How is streaming different from downloading?

A Both involve transmission of media file data across the network to your PC. Unlike downloading, however, streaming doesn't leave a copy of the file on your computer.

## Q What do I need to start streaming?

A To receive streaming content, you need a recent Web browser or software player. To stream from one PC to another, install a media server application.

## Q What type of quality can I expect from streaming video?

A Some sites provide streams of up to 720p high-definition and beyond, although clips may start at a lower resolution by default.

## Q What should I do if my Internet streaming is constantly being interrupted?

A Shut down other downloads, restart the streaming application, and try again. If conditions don't improve, try restarting the stream later on.

## Q What problems can happen during streaming?

A If there's a slowdown on the streaming server, the Internet, or your home network, your audio or video will stutter or freeze until more data arrives.

## Q What kind of home network is best for streaming?

A A fast wired network is the most foolproof. However, a strong 802.11g/n wireless network can handle audio and most video, assuming there's no interference.

## Q What kind of Internet service do I need for online streaming?

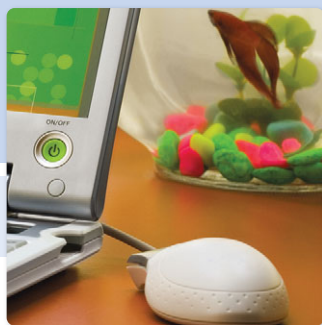
A Broadband is essential, at least for video streams. With a fast connection, you should be able to view video at its highest resolution available.

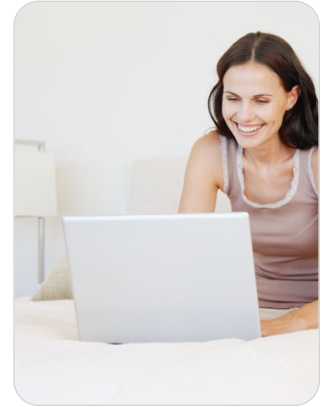
## Q Can I save a copy of a streamed song or video?

A In some cases, yes. Certain browser add-ons and other software let you keep a local copy of particular kinds of streams.

## Q Besides computers, what other devices can stream audio or video?

A You can use certain game consoles, BD (Blu-ray Disc) players, media extenders, HDTVs with network connections, and more to stream local or online content.





# Computing Glossary

Shopping for a computer can be intimidating, especially with all of the complex terminology. Here, we'll explain some common computer jargon.

**Bluetooth**—A short-range wireless standard that connects devices such as computers, printers, PDAs, and digital cameras so they can be used together without being connected physically with a cord.

**broadband**—Network connections that transmit high-speed Internet access. Broadband speed varies depending on the provider. Cable companies offer speeds of around 8 to 11Mbps, whereas phone companies offer DSL (Digital Subscriber Line), which supports speeds of 3 to 5Mbps.

**CRT (cathode-ray tube)**—An old analog display technology for TVs and computer monitors. It features an electron gun illuminating phosphor dots that line the inside of a glass tube. When the phosphors are lit, they display on-screen images. CRTs consume a great deal of power and are heavy and bulky. Many CRTs support digital signals, though these degrade when converted to analog.

**dual-core processor**—This integrated circuit, which controls the computer,

features two processors, each with its own cache, on a single die or chassis. In a dual-core configuration, the operating system has two processors to handle instructions, speeding up the computer and its ability to multitask.

**Ethernet**—A widely used LAN protocol in which computers and networks are physically linked with a cord.

**firewall**—Hardware or software that limits access by a network or another outside source to your computer; it also may limit your computer's access to the network. These security measures are designed to protect your computer from outsiders who'd like to exploit it in some way. By the same token, firewalls may prevent infected files on your computer from accessing the larger network and spreading the problem to other users.

**LAN (local-area network)**—A group of computers that are physically connected by wires so they can communicate with one another and share information.

**LCD (liquid-crystal display)**—This technology sandwiches liquid crystals between thin sheets of glass. The crystals twist and untwist to allow and block light from a backlight, forming the images you see. LCDs are thinner, lighter, and consume less power than CRTs. Initially used mostly in notebook PCs,

you'll now find LCD TVs and computer monitors, and they are also in digital cameras, cell phones, portable DVD players, and other devices.

**office suite**—Productivity software, such as Microsoft Office, StarOffice, and OpenOffice, that often includes word processing, spreadsheet, presentation, database, and financial tools.

**operating system**—The software, such as Windows Vista, Windows 7, or Mac OS X, that controls a computer and its peripherals and serves as the primary interface for the users.









**processor**—Also known as a microprocessor or the CPU, this integrated circuit controls the computer.

**RAM (random-access memory)**—A type of memory that's read from and written to by the CPU and hardware.

**upgradeable**—This term refers to the ability to add or swap out hardware to boost a computer's performance, increase its speed, or replace a defective or obsolete device or component. For instance, you may add more memory, replace an old CRT with a widescreen LCD, or swap out an older video card for a newer one that features an ATSC TV tuner so you can watch digital TV on your computer. Look for a computer with expansion slots or empty bays.

# Which Notebook Computer Is Best For You?

A notebook computer is a pretty big purchase for most people, and it's usually a bit overwhelming, too. This chart compares the features and specs from several different types of notebook models.









		Operating system	Processor	Hard drive size; RAM	Screen size	Dimensions; Weight	Optical drives; Media card reader
	What It Means	The software (usually Windows or Mac OS X) that controls your computer	Chip that controls the computer (typically, a bigger number is better)	How much data the computer can hold; Memory that's read and written to	The diagonal measurement of the notebook's screen	Height x width x depth; How much the laptop weighs	Drives that can read and write discs; Slots that read media cards without a separate peripheral
	<b>Dell Inspiron I1545-3232OBBK</b> MSRP: \$399.99* SKU 9947136	Windows 7 Home Premium	2.3GHz Intel Pentium	250GB; 2GB	15.6 inches	1.5x14.7x9.6 inches; 5.9 pounds	DVD±RW/CD-RW; Yes
	<b>Toshiba Satellite C655-S5049</b> MSRP: \$454.99* SKU 9988402	Windows 7 Home Premium	2.2GHz Intel Celeron	250GB; 2GB	15.6 inches	1.5x15x11 inches; 5.5 pounds	Double-layer DVD±RW/CD-RW; Yes
	<b>Dell I1545-4266PPU</b> MSRP: \$479.99* SKU 9693482	Windows 7 Home Premium	2.26GHz Intel Pentium	250GB; 3GB	15.6 inches	1.5x14.7x9.6 inches; 5.8 pounds	DVD±RW/CD-RW; Yes
	<b>HP G62-225DX</b> MSRP: \$499.99* SKU 9963407	Windows 7 Home Premium	2.3GHz Intel Pentium	320GB; 3GB	15.6 inches	1.4x14.7x9.7 inches; 5.5 pounds	Double-layer DVD±RW/CD-RW; Yes
	<b>Apple MacBook</b> MSRP: \$999* SKU 9944833	Mac OS X 10.6 Snow Leopard	2.4GHz Intel Core 2 Duo	250GB; 2GB	13.3 inches	1.1x13x9.1 inches; 4.7 pounds	Double-layer DVD±RW/CD-RW; No
	<b>Sony VAIO VPCF12AFM/H</b> MSRP: \$999.99* SKU 9987925	Windows 7 Home Premium	2.26GHz Intel Core i3	500GB; 4GB	16.4 inches	1.2x15.3x10.4 inches; 6.4 pounds	Double-layer DVD±RW/CD-RW; Yes
	<b>Sony VAIO VPCS111FM/S</b> MSRP: \$1,049.99* SKU 9701289	Windows 7 Home Premium	2.2GHz Intel Core i5	500GB; 4GB	13.3 inches	1.08 to 1.24x 12.95x9 inches; 4.4 pounds	Double-layer DVD±RW/BD/CD-RW; Yes
	<b>Alienware M15x</b> MSRP: \$1,999* SKU 9722255	Windows 7 Home Premium	1.6GHz Intel Core i7	320GB; 4GB	15.6 inches	1.9x14.9x 12.2 inches; 9 pounds	Double-layer DVD±RW/CD-RW; Yes

\*Prices listed in this issue are for general reference and may vary from retailer pricing.



## Which Netbook Is Best For You?

Netbooks don't offer the full capabilities that notebooks do, but these compact devices are ideal for those who need to stay connected while on the go. To find the netbook that fits your mobility needs, here's a comparison of the latest models.

		Operating system	Processor	Hard drive size; RAM	Graphics card	Memory card reader	Ports
	What It Means	The software (usually Windows XP or 7) that controls your PC	Chip that controls the computer (typically, a bigger number is better)	How much data the computer can hold; Memory that's read and written to	Controls the quality of the video and images you see on-screen	Slots that can read media cards without a separate peripheral	Sockets that give your computer access to different peripherals
	<b>HP Mini 110-3015dx</b> MSRP: \$249.99* SKU 9996501	Windows 7 Starter	1.66GHz Intel Atom	160GB; 1GB	Intel Graphics Media Accelerator 3150	SD/MMC	3 USB, 1 Ethernet, 1 VGA
	<b>MSI Wind U135-206US</b> MSRP: \$309.99* SKU 9748977	Windows 7 Starter	1.66GHz Intel Atom	160GB; 1GB	N/A	Included	3 USB, 1 Ethernet
	<b>Gateway LT2122u</b> MSRP: \$329.99* SKU 9728498	Windows 7 Starter	1.66GHz Intel Atom	250GB; 1GB	Intel Graphics Media Accelerator 3150	SD/MMC/MS/MS PRO/xD-Picture Card	3 USB, 1 Ethernet, 1 VGA
	<b>Toshiba NB255-N250</b> MSRP: \$329.99* SKU 9998457	Windows 7 Starter	1.66GHz Intel Atom	250GB; 1GB	Intel Graphics Media Accelerator 3150	SD/SDHC/MMC	3 USB, 1 Ethernet
	<b>Asus Eee PC 1018PB-BK801</b> MSRP: \$349.99* SKU 9966726	Windows 7 Starter	1.66GHz Intel Atom	250GB; 1GB	Intel UMA	Included	3 USB, 1 Ethernet
	<b>Dell Inspiron Mini IM1012-558PRP</b> MSRP: \$349.99* SKU 9980713	Windows 7 Starter	1.66GHz Intel Atom	250GB; 1GB	Intel NM10 Express	SD/MMC/MS	3 USB, 1 Ethernet
	<b>Samsung N150-11</b> MSRP: \$349.99* SKU 9973683	Windows 7 Starter	1.66GHz Intel Atom	250GB; 1GB	Intel Graphics Media Accelerator 3150	SD/SDHC/MMC	3 USB, 1 Ethernet
	<b>Sony VAIO M VPCM121AX/P</b> MSRP: \$399.99* SKU 1002933	Windows 7 Starter	1.83GHz Intel Atom	250GB; 1GB	Intel Graphics Media Accelerator 3150	SD/MS Duo	3 USB, 1 Ethernet, 1 VGA

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

## Which All-In-One PC Is Right For You?

An all-in-one computer is compact, thanks to all its hardware being placed in the monitor. Some models offer a touchscreen interface that lets you access functions by selecting on-screen items with your finger, while others rely on a wireless mouse and keyboard. To see which all-in-one PC fits your needs, check out the chart below.

		Operating system	Processor	Hard drive size; RAM	Display; Optical drive	Ports	Graphics card
	What It Means	The software (usually Windows or Mac OS X) that controls your computer	Chip that controls the computer (typically, a bigger number is better)	How much data the computer can hold; Memory that's read and written to	Display size (measured diagonally); Disc drive included with the system	Inputs the computer has for accessing peripherals	Controls the quality of your video and images
	<b>Lenovo C200 4025-1AU</b> MSRP: \$399.99* SKU 9993268	Windows XP Home Edition	1.66GHz Intel Atom	160GB; 1GB	18.5 inches; Double-layer DVD±RW/CD-RW	5 USB, 1 Ethernet, media card reader	Intel GMA 3150
	<b>Averatec D1133AF1E-2</b> MSRP: \$449.99* SKU 9952623	Windows 7 Home Premium	1.5GHz AMD Athlon X2	250GB; 2GB	18.4 inches; Double-layer DVD±RW/CD-RW	4 USB, 1 Ethernet, media card reader	ATI Radeon HD 3200
	<b>ViewSonic VPC 190</b> MSRP: \$599.99* SKU 9907379	Windows 7 Home Premium	1.66GHz Dual-Core Intel Atom	160GB; 2GB	18.5 inches; Double-layer DVD±RW/CD-RW	6 USB, 1 Ethernet, media card reader	Intel Graphics Media Accelerator 900
	<b>Sony VAIO VGC-JS450F/S</b> MSRP: \$999.99* SKU 9561592	Windows 7 Home Premium	2.7GHz Intel Pentium	500GB; 4GB	20.1 inches; Double-layer DVD±RW/BD/CD-RW	1 USB, 1 Ethernet, media card reader	Nvidia GeForce 9300M GS
	<b>Apple iMac MC413LL/A</b> MSRP: \$1,499.99* SKU 9611569	Mac OS X v10.6 Snow Leopard	3.06GHz Intel Core 2 Duo	1TB; 4GB	21.5 inches; Double-layer DVD±RW/CD-RW	4 USB, 1 Ethernet, 1 FireWire, media card reader	ATI Radeon HD 4670
	<b>Gateway ZX4300-01e</b> MSRP: \$749.99* SKU 9932711	Windows 7 Home Premium	2.7GHz AMD Athlon II X2	640GB; 4GB	20 inches; Double-layer DVD±RW/CD-RW	6 USB, 1 Ethernet, media card reader	ATI Radeon HD 4270
	<b>HP TouchSmart 300-1120</b> MSRP: \$899.99* SKU 9912717	Windows 7 Home Premium	2.7GHz AMD Athlon II X2	750GB; 4GB	20 inches; Double-layer DVD±RW/CD-RW	5 USB, 1 Ethernet, media card reader	ATI Radeon HD 3200
	<b>HP TouchSmart 300-1122</b> MSRP: \$999.99* SKU 9912753	Windows 7 Home Premium	2.8GHz AMD Athlon II X2	1TB; 4GB	20 inches; Double-layer DVD±RW/CD-RW	5 USB, 1 Ethernet, media card reader	ATI Radeon HD 3200

Touchscreens

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

# Software Listings

## Get More Out Of Your PC

Computers can be used to create greeting cards, play games, keep track of your finances, and more. The thing is, most of these functions aren't available straight out of the box. To fully harness your computer's potential, you'll need to buy software. Here are some options.

### Photo, Video & Audio



**Adobe Photoshop  
Lightroom 2**  
\$299\*  
www.adobe.com

*This photo management software from Adobe lets you quickly and easily import, process, manage, and showcase your images.*



**Corel PaintShop Photo Pro X3**  
\$99.99\*  
www.corel.com

*Corel PaintShop Photo Pro X3 lets you manage, edit, and share your digital photos. You can make automatic fixes in the enhanced Express Lab, or you can use the included advanced editing tools.*



**Broderbund PrintMaster  
Platinum**  
\$39.99\*  
www.broderbund.com

*Create projects such as photo greeting cards, scrapbook pages, family newsletters, and more with the templates and fonts included with PrintMaster Platinum. You can also edit photos before adding them to your projects.*



**Roxio Creator 2010**  
\$99.99\*  
www.roxio.com

*Use Roxio Creator 2010 to easily capture, enhance, and save your photos, videos, and audio projects. Sharing is available using a variety of methods. It also includes tutorials for advanced users and beginners.*



**Pinnacle Studio Ultimate  
Collection**  
\$129.99\*  
www.pinnaclesys.com

*Pinnacle Studio Ultimate Collection comes with a full set of plug-ins and a Chroma-key green screen for advanced effects, editing, and production.*



**Corel Photo & Video  
Pro X3 Bundle**  
\$149.99\*  
www.corel.com

See p. 51

*The Photo & Video Pro X3 Bundle from Corel features powerful editing tools for both photos and videos as well as tools for organizing your media and creating projects.*



**Roxio Toast 10 Titanium  
For Macs**  
\$99.99\*  
www.roxio.com

*Use Toast 10 Titanium to burn audio tracks, video clips, and other data to disc or convert files for playback on other devices.*



**Apple Final Cut Express 4**  
\$199\*  
www.apple.com

*A drag-and-drop interface provides seamless movement between editing, trimming, and adding effects to your videos. The software is compatible with popular HD formats, including HDV and AVCHD.*

### Business Applications



**Microsoft Office Home &  
Student 2010**  
\$149.99\*  
www.microsoft.com

See p. 49

*The Home and Student version of Microsoft Office 2010 has enhanced features for creating and managing documents and includes Word, PowerPoint, Excel, and OneNote.*



**Adobe Acrobat 9  
Standard (Upgrade)**  
\$99\*  
www.adobe.com

*Upgrade to Adobe Acrobat 9 Standard to easily create, combine, and manage various PDF files with improved features.*



**Intuit Quicken Home &  
Business 2010**  
\$99.99\*  
www.quicken.intuit.com

*The 2010 version of Quicken Home and Business includes automatic bill reminders and a one-page view of your finances. Plus, it shows you where you are spending and where you can save.*



**Intuit QuickBooks Pro 2010**  
\$179.95\*  
www.quickbooks.intuit.com

*Easily keep track of your company's finances with QuickBooks Pro 2010. You can organize and reference your customer, vendor, and employee financial information all in one place.*

\* Prices listed in this issue are for general reference and may vary from retail pricing.



## Games/ Entertainment



**Activision Barbie  
& The Three  
Musketeers**  
\$19.99\*

[www.activision.com](http://www.activision.com)  
Choose a character with a unique ability to help you tackle obstacles and solve puzzles to uncover a plot against the prince and become a true musketeer.



**Disney Interactive  
Studio Alice In  
Wonderland**  
\$19.99\*

[disney.go.com/disneyinteractivestudios](http://disney.go.com/disneyinteractivestudios)  
Inspired by the Tim Burton film, this game lets you fall down the rabbit hole and experience Alice's adventure in Wonderland. You can play as the Mad Hatter, White Rabbit, or another character from the film to help Alice on her journey.



**Electronic Arts  
The Sims 3**  
\$49.95\*

[www.ea.com](http://www.ea.com)  
Create your very own Sims. Customize their personalities, appearances, and homes and send them out into the world to explore the neighborhood and meet new friends.



**Lego Indiana Jones  
2: The Adventure  
Continues**  
\$29.99\*

[www.lucasarts.com](http://www.lucasarts.com)  
Explore the locations from all four films and build your own levels and environments. And, all of your favorite characters are depicted in Lego form.

## Home Productivity



**Nuance Dragon  
NaturallySpeaking  
10 Preferred**  
\$199\*

[www.nuance.com](http://www.nuance.com)  
Dictate emails, reports, and documents much faster than you can type by letting Dragon NaturallySpeaking do the typing for you. The software has an accuracy rate of up to 99%.



**Apple MobileMe**  
\$99\*

[www.apple.com](http://www.apple.com)  
MobileMe, Apple's Internet service, lets you keep your email, contacts, and calendar up-to-date across your iPhone, iPod touch, Mac, and PC. It also lets you store and share documents online via iDisk, and you can manage everything online through a suite of Web applications at [www.me.com](http://www.me.com).



**DeLorme Street  
Atlas USA 2010  
Plus**  
\$39.95\*

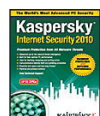
[www.delorme.com](http://www.delorme.com)  
Street Atlas USA 2010 Plus is updated with new roads and road names, and it's now ready to use on any of your favorite devices, such as GPSes, netbooks, computers, and smartphones.



**Susteen Data  
Pilot Backup &  
Sync Kit (LG)**  
\$24.99\*

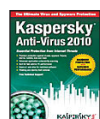
[www.datapilot.com](http://www.datapilot.com)  
Back up and sync your cell phone memory to your computer with a backup and sync kit. Kits for other phone manufacturers are also available.

## Security/ Utilities



**Kaspersky Lab  
Internet Security  
2010**  
\$79.95\*

[www.kaspersky.com](http://www.kaspersky.com)  
Kaspersky Internet Security 2010 includes protection from the latest viruses, spyware, and malware threats.



**Kaspersky  
Lab Anti-  
Virus 2010**  
\$59.95\*

[www.kaspersky.com](http://www.kaspersky.com)  
Kaspersky Anti-Virus 2010 includes essential protection against Internet threats, such as viruses, spyware, Trojans, and more as well as phishing and identity theft defense.



**Webroot  
AntiVirus  
With Spy  
Sweeper 2010**  
\$39.95\*

[www.webroot.com](http://www.webroot.com)  
Protect up to three computers from viruses and spyware. Spy Sweeper stops both known and potential threats by blocking suspicious activity and is compatible with Microsoft's Windows 7 operating system.



**Trend Micro  
Titanium  
AntiVirus+**  
\$39.95\*

[www.trendmicro.com](http://www.trendmicro.com)  
Trend Micro's Titanium AntiVirus+ has been designed to run in the background, so it can provide protection from the latest threats without bogging down your system.

## System Clean-Up & Repair



**Avanquest  
Fix-It Utilities  
10 Professional**  
\$49.95\*

[www.avanquest.com](http://www.avanquest.com)  
Fix-It Utilities 10 Professional can make your computer run like new. It performs more than 250 tests to see what is slowing your computer down and then fixes the problem, giving you better performance.



**iolo System  
Mechanic**  
\$49.95\*

[www.iolo.com](http://www.iolo.com)  
With System Mechanic, you can find and fix errors and fragmentation on your PC, clean out clutter, and optimize your system for best performance.



**Acronis True  
Image Home  
2010**  
\$49.99\*

[www.acronis.com](http://www.acronis.com)  
This software backs up your entire computer, including the operating system, files, settings, and more, so you can easily recreate your system in the event of data loss.



**iolo  
DriveScrubber**  
\$29.95\*

[www.iolo.com](http://www.iolo.com)  
When it's time to get rid of your old computer, use DriveScrubber to ensure all of your personal data has been deleted. DriveScrubber will wipe your entire drive, including free space, and restore damaged drives.

## NOTEWORTHY

# Accessories & Services

A computer is a big investment, and now that you've taken the plunge, it's time to decide what accessories you need to go along with that shiny new purchase. We've rounded up several of our favorite extras for every computer owner. Whether you have a laptop or desktop, be sure to add these items to your shopping list to complete your computing experience.



## KEYBOARD

- An ergonomic design can cut down on the wrist strain associated with carpal tunnel syndrome
- Bluetooth connectivity lends itself to a tidy desk because there's one less wire to contend with
- A specialty model, such as a gaming or media keyboard, adds functionality to your pastime of choice



## EXTERNAL HARD DRIVE

- Protect precious video and photo memories: Back up to an external hard drive
- Keep your computer running more efficiently by saving large files, such as your media collection, on an external drive



## CLEANING KIT

- Specially designed cleaners will keep your computer screen clean without running the risk of scratching its surface
- Cloths are often made of low-conductivity material in order to reduce static



## PRINTER

- A quality photo printer will eliminate trips to the drugstore for 4x6 prints and give you the ability to instantly share your photo memories
- An all-in-one model is the perfect addition for any busy family that needs a device that can operate as a copier, scanner, fax, and printer



## USB HUB

- Offers an affordable way to connect all of your peripherals, even if you have more gadgets than USB ports
- Adds the convenience of easy USB access—no more reaching behind your computer to plug in your USB devices



## MOUSE

- A wireless mouse will cut down on cable clutter at your desk and also offers the convenience of portability for laptop use
- A gaming mouse can deliver better accuracy and speed for the ultimate in control
- Consider customizable buttons if you want to be able to access media, files, or programs with one-touch access



## SURGE PROTECTOR

- Ensure the electrical current running to your desktop or laptop computer doesn't exceed proper levels
- Portable models will protect your laptop when you're on the go for work or play



## COMPUTING SERVICES

To keep your desktop or laptop computer in tip-top shape, take advantage of the computing services offered at your local CE retailer. They can help you keep your machine running smoothly and free from the dangers that lurk online.

- Computer Setup & Networking
- Virus & Spyware Removal
- Data Backup & Recovery
- Hardware & Software Upgrades
- Training & Consultation



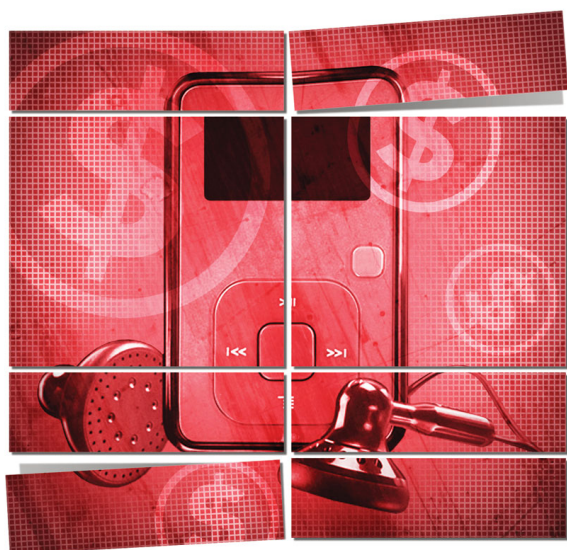
## WEB CAM

- Bridge the gap between long-distance family and friends with online video chatting by adding a Web cam to your setup

## HOW TO BUY

# The Best MP3 Player Storage Capacity

## Convenient Access To Your Media



Our tools and toys reflect our lifestyles, and MP3 players are no exception. Often called PMPs or personal media players, these handy devices offer many features, but perhaps the first and most important decision you should make when buying one is how much storage capacity you require.

**Storage types.** PMPs use two main types of storage. These days, most players use flash memory, a type of memory-based storage that uses no moving parts. These are reliable, fast, and sturdy. A few large-capacity players still use hard drives; these work fine and sometimes offer more storage for less money, but PMPs with hard drives are more fragile than flash memory-based players.

... most  
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use flash  
memory ...

**What's available.** MP3 player storage capacity typically ranges from 2 to 32GB. Other PMP models offer 64GB or more of storage, and a few can store more than 160GB, but these might be somewhat larger devices that are not as conveniently portable as the typical PMP. Still, if you need that sort of capacity, it's available.

**Actual use.** A 2GB player can store about 500 songs, or roughly 25 hours of music. That's easily enough for several weeks' worth of music for jogging, parties, or a long weekend out of town. Concentrate on 32GB models if storing video clips or full-length movies is required or if an extended trip is a possibility: These can store about 7,000 songs or 40 hours of video or more. A 64GB device can store up to 14,000 songs, and if you want to store even more content, a 160GB device can hold about 80,000 songs or 210 movies.

Of course, the number of songs you can store on a device will vary, depending on the length of each, the file format, and other factors.

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# Find A Music Player

## Get What Works For You



If you're looking for a way to enjoy music and talk radio on the go or at home, you have a few different options. Portable satellite radios, Internet radios, and MP3 players are great companions while traveling, working out, or relaxing at home.

### Portable Satellite Radios

- With a subscription from a satellite radio provider, you can listen to a variety of commercial-free satellite radio stations.
- If your model has a microSD card slot, you can add audio files to your player or record songs and other programming.
- Some players can display content information, such as a song's artist and album, and many let you pause and replay live programs and songs.
- A headphone jack and support for a speaker dock means you can enjoy satellite radio on your own while on the move or at home with others.

### Internet Radio

- Internet radios stream content from the Web using a wired or wireless Internet connection.
- You can listen to Internet radio without having to pay for a subscription.
- Using your wired or wireless home network, you can stream music to your player from your own music library on your computer.
- Some Internet radios include a built-in AM/FM radio tuner and can double as a clock radio for your nightstand.

### MP3 Players

- All MP3 players play back music, and several also support photos and videos. Some MP3 players are equipped with a Wi-Fi antenna and/or an FM or HD Radio tuner. Those with Bluetooth let you connect to other Bluetooth-compatible devices, such as headphones.
- Because MP3 players mostly rely on content stored on your device, they have internal storage capacities that reach as high as 64GB. Media card slots let you add storage.
- If your MP3 player has a Web connection, you can download content directly to the device from the Web.

## ESSENTIAL THINGS TO KNOW

# MP3 Player Speaker Docks

**Q Can I get a dock that will work with multiple types and sizes of MP3 players?**

**A** Yes, some speaker docks will accommodate multiple models and sizes of a particular brand of player. These usually come with adapters that snap into the dock so that your player will fit correctly.

**Q Do all docks include integrated speakers?**

**A** Many docks—especially the more compact models—include integrated speakers, but some offer speakers as separate single or multipiece units.

**Q Do MP3 player docks work with smartphones?**

**A** In most cases, you can find a dock that will work with your smartphone, or you may be able to physically connect your phone with an auxiliary cable.

**Q Are speaker docks brand-specific?**

**A** Yes, most are made for a specific brand—although they may accommodate multiple models within that brand. If a player does not work with the dock you have, you may be able to physically connect it with an auxiliary input.

**Q Are there docks made for satellite radios?**

**A** Yes, there are speaker docks available for most portable satellite radios.

**Q How powerful is a speaker dock's audio output?**

**A** Some put out as little as 40W total—20 per stereo channel. Docks that are integrated with full-blown stereo systems may be rated at 180W or more, which is comparable to many low-end home theater setups. For a small party, anything up to 40W or so would be plenty; a wedding reception held in a large hall may require 100W or more.

**Q What other features do MP3 player docks have?**

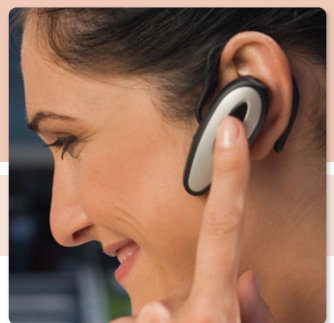
**A** Many docks include remote control units and charge your player while it is docked. If the player supports video, some docks can output the player's video signal to an external display.

**Q Can I find docks in different sizes, shapes, and configurations?**

**A** Yes, there are all sorts of different dock sizes and shapes. Some are tiny—barely larger than the player itself. Some are box-shaped, and some are actually part of a sophisticated stereo system that includes speakers, a CD player, and more in addition to a dock for an MP3 player.

**Q Do speaker docks support multichannel audio?**

**A** Yes, a few docks support 3.1 or 5.1 audio. This feature is normally found only in docks that are part of a larger, sophisticated entertainment system, or ones with more output power and larger speakers.



# MP3 Player Glossary

Who doesn't want an MP3 player? It can help you relax, motivate you, and ensure you always have a song to match your mood. When you head to your local CE retailer to snag one, make sure you have this glossary so you can choose the perfect model.

**AAC**—Short for Advanced Audio Coding, this format is a competitor of the more common MP3 file format. It is the default format used by Apple.

**Click Wheel**—Apple's proprietary circular control on the front of the iPod.

**Certified For Windows Vista**—A certification from Microsoft that ensures your portable devices, such as MP3 players, and media, such as digital music and videos, are compatible with each other. This was once called PlaysForSure.

**download**—In terms of digital music, downloading is when you retrieve a song from an Internet site or another network connection and save it to your computer or portable music player. You can download songs from music Web sites such as iTunes, Napster, or Rhapsody.

**DRM (digital rights management)**—A security mechanism for digital media, associated with copyright. A common DRM scheme for digital music involves getting a licensed file to authorize playback of a free or purchased song.

**earbuds**—Small, circular devices you put into your ears so you can listen to music on your player. These serve the same function as headphones. Many music players

include their own earbuds, but you can purchase a separate pair that are more comfortable or of better quality.

**flash memory**—Solid-state memory with no moving parts that is lightweight and small. In terms of digital music players, a flash-based player is lighter and smaller than a hard drive-based player, and also, it won't skip. Thus, flash-based players are popular for use during exercise. However, the capacity of a flash-based player isn't as large as a hard drive-based player.

**FM tuner**—If your music player has a built-in FM tuner, you will be able to listen to music that is broadcast from local radio stations.

**hard drive**—Storage that consists of rigid platters inside a fixed casing. In terms of digital music players, a hard drive-based player is larger and heavier than a flash-based player. Because of the moving parts (the platters), hard drive-based players are also prone to skipping. However, their capacities are much larger than those of flash-based players.

**music management program**—A program, such as iTunes or Napster, that loads onto your computer and lets you play, organize, and download and purchase media, such as music and videos, for your player or PC.



**MP3**—Perhaps the most popular digital audio encoding format. It compresses audio to about one-twelfth the original size while still providing excellent sound. In general, a 1MB MP3 file will last about one minute.

**playlist**—A queue of songs a user creates to play on a computer, burn to a CD, or transfer to an MP3 player. The playlist includes only directions to the location of the songs, not the songs themselves.

**podcast**—A downloadable episode that is similar to a radio program. A user can subscribe to a podcast for updated episodes, or she can download podcasts one at a time.

**screen**—The display on the front of a portable music player. A player's screen can either display in color or black and white.

**WMA**—Windows Media Audio is a digital audio format created by Microsoft.

**widescreen**—A screen with a 16:9 aspect ratio.



## Which MP3 Player Is Best For You?









iPods are cool, sure, but you have other choices when it comes to listening to your tunes. This chart compares the most important—and coolest—features from select MP3 players.

		Memory type	Capacity	Songs	Video; FM tuner capabilities	Colors	Battery life
	What It Means	Hard drive (moving parts, more capacity) or flash (no moving parts)	How much memory the player has	Based on four-minute songs at 128Kbps, the number a player can hold	Some MP3 players can play video or let you listen to radio stations	Several players offer a variety of color choices	How long the battery will last when playing music
	<b>SanDisk Sansa Clip+</b> MSRP: \$39.99*; \$49.99* SKU 9448564	Flash	2GB; 4GB	500; 1,000	No; Yes	Black, red, blue	15 hours
	<b>Apple iPod shuffle</b> MSRP: \$59*; \$79* SKU 9229765	Flash	2GB; 4GB	500; 1,000 (AAC)	Neither	Black, silver, pink, green, blue	10 hours
	<b>Sony E Series Walkman</b> MSRP: \$79.95* SKU 9443792	Flash	8GB	N/A	Both	Black	30 hours
	<b>Sony S Series Walkman</b> MSRP: \$99.99*; \$119.99 SKU 9443827	Flash	8GB; 16GB	N/A	Both	Black, pink, violet, red	42 hours
	<b>Apple iPod nano</b> MSRP: \$149*; \$179* SKU 9416376	Flash	8GB; 16GB	2,000; 4,000 (AAC)	Both	Pink, orange, green, blue, purple, black, silver	24 hours
	<b>Finis SwiMP3</b> MSRP: \$149.99* SKU 9525515	Flash	1GB	240	Neither	Blue	8 hours
	<b>Apple iPod touch</b> MSRP: \$199*; \$299*; \$399* SKU 8771732	Flash	8GB; 32GB; 64GB	1,750; 7,000; 14,000 (AAC)	Yes; No	Black	30 hours
	<b>Microsoft Zune HD</b> MSRP: \$199.99*; \$269.99* SKU 9449581	Flash	16GB; 32GB	4,000; 8,000	Both	Black, silver	33 hours

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

## Which GPS Device Is Right For You?

One of the hottest CE devices around right now is a GPS, and what a useful device it is, too. Here, we compare some models available on today's market. All of these units come with maps already loaded, and you can purchase additional maps, as well.

		Screen size; Dimensions	Text-to-speech; Traffic receiver	Preloaded maps	WAAS	Bluetooth; MP3 playback	Included charging adapters
What It Means		The diagonal measurement of the screen; Height x width x depth	Unit calls out specific street names; Unit receives traffic updates and re-routes accordingly	The regional maps that come included with the GPS unit	A satellite and ground station system that gives exceptional GPS accuracy	Some units communicate wirelessly with other Bluetooth devices or play MP3s	AC adapters plug into the wall; DC adapters plug into your car's cigarette lighter
	<b>Insignia NS-CNV20</b> MSRP: \$79.99* SKU 8947312	4.3 inches; 3.2x4x0.9 inches	Yes; Yes	Entire U.S.	Yes	Yes; No	DC adapter; AC adapter
	<b>Garmin nüvi 205W</b> MSRP: \$139.99* SKU 9470556	4.3 inches; 2.9x4.8x0.8 inches	No; No	Entire U.S. (including Puerto Rico)	No	No; No	DC adapter
	<b>Magellan RoadMate 1424</b> MSRP: \$149.99* SKU 9894383	4.3 inches; 3.2x4.8x0.7 inches	Yes; Yes (with optional Traffic Link adapter)	Entire U.S. (including Puerto Rico) and Canada	Yes	No; No	DC adapter
	<b>TomTom XL 350TM</b> MSRP: \$229.95* SKU 9927197	4.3 inches; 3.2x4.7x0.9 inches	Yes; Yes (with optional traffic receiver)	Entire U.S. (including Puerto Rico), Canada, and Mexico	No	No; No	DC adapter
	<b>TomTom XL 340TM LIVE</b> MSRP: \$259.95* SKU 9927018	4.3 inches; 3.2x4.8x1.1 inches	Yes; Yes	Entire U.S. (including Puerto Rico), Canada, and Mexico	No	No; No	DC adapter
	<b>TomTom XXL 540TM</b> MSRP: \$259.95* SKU 1054495	5 inches; 3.2x4.8x0.9 inches	Yes; Yes (with optional traffic receiver)	Entire U.S. (including Puerto Rico), Canada, and Mexico	No	No; No	DC adapter
	<b>Magellan RoadMate 3065</b> MSRP: \$299.99* SKU 9904781	4.7 inches; 3.4x5.4x0.6 inches	Yes; Yes	Entire U.S. (including Puerto Rico) and Canada	Yes	Yes; No	DC adapter
	<b>Garmin nüvi 3760T</b> MSRP: \$399.99* SKU 9888989	4.3 inches; 2.9x4.8x0.4 inches	Yes; No	Entire U.S. (including Puerto Rico), Canada, and Mexico	No	Yes; No	DC adapter

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

# NOTEWORTHY

# Accessories & Services

No matter where you are going, a wireless device can add enjoyment to your journey. To make sure you are taking full advantage of the capabilities your wireless devices offer, check your local CE retailer for accessories that can enhance your mobile experiences. We've listed our favorites below.



## GPS CHARGERS

- Make sure your travel companion always has a full battery
- If you do run out of battery, charge your GPS with an adapter; these can plug into a wall, PC, or car's DC outlet



## MP3 PLAYER CASES

- Protect your MP3 player from bumps and scratches
- Quickly access your player's functions with a clip
- Keep your player out of your way with an armband



## GPS MOUNTS

- Mounts can be placed on a car dash or stuck to a windshield to be within reach



## MP3 PLAYER EARPHONES

- Match earphones to your needs: If you don't want anything bulky, opt for earbuds that fit inside your ear; to hear every musical detail, try headphones that cover the ear completely
- Listen to your music without the interference of background noise with earphones that offer a noise-canceling feature



## CELL PHONE CHARGERS & BATTERIES

- Keep your phone charged no matter where you are; adapters for your cell phone let you use solar power, your car's DC outlet, wall power, or your computer to charge your phone
- Be prepared for emergencies with extra cell phone batteries



## MP3 PLAYER DOCKS & SPEAKERS

- Portable speakers let you play music for a group; some include radios and can also play CDs
- With a portable dock, you can recharge your player's battery as you listen to music
- Play your music through car speakers using an FM transmitter



## CELL PHONE CASES

- Safeguard your phone from wear and tear with a case
- Universal cases fit most sizes of cell phones; some of these will include clips and wrist straps for portability and accessibility
- Fitted cases specifically fit your phone's model type; these can be hard acrylic casings, rubber sleeves, or leather pouches
- Avoid getting scratches and fingerprints on your phone's screen with stick-on or hard, clear screen protectors



## CELL PHONE HEADSETS

- Keep your hands free while still being able to use your phone
- Link compatible cell phones to a Bluetooth headset to make or take calls without a tangled mess of cables
- Use a headset that offers noise-canceling capabilities to ensure you don't miss any of your conversation



## MOBILE SERVICES

- Whether your wireless device is brand-new or nearing the end of its life span, your local CE retailer offers services to help you take care of all of it's needs.
- Protection plans for GPSes, MP3 players, and cell phones
  - Phone and battery recycling
  - GPS setup and deck installation
  - MP3 vehicle integration
  - MP3 player setup and training
  - Cell phone repair services and loaner phones



# Livescribe's Echo™ Smartpen

## The World's Most Collaborative Ink Pen

Livescribe ([www.livescribe.com](http://www.livescribe.com)) redefined what a pen and paper can do with its Pulse™ smartpens, which function like standard ink pens, but can also digitally record everything you hear and write, while synching your notes and audio together. The new Echo smartpen redefines how users can organize, share, and secure that information.

### Meet The Echo, Echo, Echo . . .

Echo models are available in 4GB (\$169.95) and 8GB (\$199.95) options and feature:

- An embedded OLED screen, mic, speaker, micro USB port, infrared camera, speaker, and standard 3.5mm headphone jack
- Micro USB cable to transfer recordings and notes to Windows or Mac computers
- Soft rubberized grip and anti-roll contoured shape
- Rechargeable Li-Ion battery
- Replaceable ink cartridges and smartpen caps



Livescribe 4GB and 8GB Echo Smartpen \$169.95 and \$199.95, respectively  
[www.livescribe.com](http://www.livescribe.com)

### Press Record

With the 4GB or 8GB Echo you can record 400 hours or 800 hours of audio, respectively, and thousands of pages of notes. You can also:

- Tap your notes jotted on special dot paper and play the audio recorded at the time you wrote that note
- Play back your notes using Echo's integrated speaker, headphone jack, or your computer
- Use Livescribe Desktop software to store, organize, and share recordings; access 500MB of online storage; interact with Livescribe Community members; and more
- Share your recordings publicly or privately as a pencast, PDF, or audio file
- Download productivity, educational, and other apps from Livescribe's application store

### New Smartpens, New Abilities

- Quickly access your applications with Launch Line
- Protect your audio recordings with Password Protect
- Share your notes and recordings as a Pencast PDF—providing the full interactive pencast experience of synced notes and audio as a standard PDF
- Use a Paper Tablet collaboration tool. Enable dot paper to function as an “interactive screen” for real-time communication with others (Available in Fall 2010.)
- Mark-up documents or collaborate in real time via Skype, WebEx, Adobe Connect, video conferences, and other platforms
- Access pencasts from Apple iPhone or touch via the My Livescribe app

# Hands-On Gaming

## Kinect For Xbox 360 Brings Entertainment To The Whole Family

To date, the best assets of Xbox 360 ([www.xbox.com](http://www.xbox.com)), an extensive action-packed game catalog and the iconic controller, represent the biggest barriers to the platform for nongamers, dividing the family into those who game and everyone else. But Kinect for Xbox 360 (which was formerly known as Project Natal and will be available this November) eliminates the need for a controller and lets the whole family engage with their most fundamental faculties: body and voice.

### No Controller, No Problem

Kinect consists of a single sensor that plugs into any Xbox 360 and uses a combination of technologies, including a motorized tilting base, a color camera, a pair of 3D depth sensors, and a multiarray microphone, to display a 3D representation of your body in games, read your gestures, follow you as you move, and respond to your voice. If that doesn't sound like a controller to you, then you're beginning to catch on.

### Kinect Experiences

Kinect effectively cuts the controller from the Xbox 360 experience, but that doesn't mean you're limited in what you can enjoy with the sensor. Kinect lets you log into Xbox LIVE by simply standing in front of the sensor and waving your hand. Once logged in, you can wave your hand again to access a controller-free menu, called the Kinect Hub, that lets you launch popular Xbox content such as games,

Netflix, Zune, Facebook, Last.fm, your friends list, and more. To make a selection, simply hold your hand up and hover it over the option you want; after a short pause, the selected content launches.

Go ahead and leave the remote between the sofa cushions. Kinect also lets you navigate the Xbox interface and



## Get Up & Game

Where Kinect really shines is in the games department; here, you'll find games built from the ground up to take advantage of Kinect's unique control scheme. To date, more than a dozen titles have been announced that exhibit innovative and family-friendly gameplay like you've never experienced before. **Kinectimals** is a game bursting at the seams with cute: It lets kids of all ages adopt and play with 40 different animals and play more than 30 activities.

**Kinect Adventures** lets you experience 20 thrilling outdoor

activities such as rafting, challenging obstacle courses, and more, but all in the relative safety of your living room.

**Your Shape: Fitness Evolved** is an exercise game that puts you in the game, letting you perfect your form to shed pounds and get fit.

When Kinect launches in November, you can add family-oriented gaming and intuitive controller-free navigation to the Xbox 360's already-impressive list of capabilities.

**PRE-ORDER  
KINECT NOW!**

See your retailer for details.

## The New Xbox 360 & Kinect

Kinect works with every Xbox 360 available, but if you're using a sleek new Xbox 360 250GB Console (\$299.99) you can take advantage of the Kinect port, which lets you run the Kinect sensor without a dedicated power adapter.

control media playback using voice commands. If you see the menu option on-screen, simply address the console by saying "Xbox" and then speak aloud the content option you want to explore—if you see it, you can say it. To control your music listening and movie and TV watching experience, just speak commands such as Play, Pause, and Stop.

Kinect is also about keeping you connected with your friends and family no matter how many miles separate you. With Xbox LIVE Video Kinect, you can engage in direct conversation with your friends and family, and the auto zoom focus tracks you as you move so you stay centered in the frame. Or, sit back and share some news, sports, TV, movies, or music with other Kinect users all over the world.



## Which Gaming System Is Best For You?

Game consoles and portable devices are no longer limited to gameplay. They can also access the Internet, download media, and play your favorite DVDs or CDs. To help you find a gaming device that will suit you best, here's a comparison of the most popular selections you can find at your local CE retailer.

		Hard drive size	Compatible memory cards	Optical drive	Video resolution output	Ports	
	What It Means	How much data the system can hold	Cards that will let you save and offload data, such as game saves or personal media	Aside from game discs, other playable media formats	Highest number of video pixels that is sent to a TV or portable console screen	Hookups for controllers as well as video and audio outputs	
Console Devices		<b>Sony PlayStation 3</b> MSRP: \$349.99* SKU 9611611	250GB	PlayStation and PlayStation 2 cards with optional USB memory card adapter	CD, DVD, BD	1,920 x 1,080	1 A/V, 1 Ethernet, 1 HDMI, 1 optical digital audio, 2 USB
		<b>Nintendo Wii</b> MSRP: \$199.99* SKU 9916446	512MB	SD/Nintendo GameCube Memory Card	Can only play game titles	720 x 480	4 controller, 1 Component, 1 Composite, 1 S-Video, 2 USB
		<b>Microsoft Xbox 360</b> MSRP: \$299.99* SKU 1069212 <i>See p. 70</i>	250GB	USB flash drive	N/A	1,920 x 1,080	1 optical audio out, 1 Ethernet, 1 HDMI, 5 USB, Kinect port
Portable Devices		<b>Nintendo DSi</b> MSRP: \$169.99* SKU 9249725 (blue)	256MB	SD	None	Dual 256 x 192	1 headphone, 1 microphone
		<b>Nintendo DSi XL</b> MSRP: \$189.99* SKU 9760166	256MB	SD	None	Dual 256 x 192	1 headphone, 1 microphone
		<b>Sony PSPgo</b> MSRP: \$249.99* SKU 9459659	16GB	Memory Stick Micro	None; download to internal and removable memory only	480 x 272	1 USB, 1 headphone
		<b>Sony PlayStation Portable 3000</b> MSRP: \$169.99* SKU 9175082	64MB	Memory Stick Duo	UMD (Universal Media Disc)	480 x 272	1 video out/headset, 1 USB, 1 DC out

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

	Online community	Wi-Fi access; Media streaming	Parental controls	Compatible game formats	Included accessories & services	Available accessories	Controllers	Perfect for
	Web site membership for downloads, upgrades, and more	Access the Internet without a cable hookup; Send and receive media wirelessly	Help parents decide what content their kids can or cannot access	Game titles that can be played on the game system	Accessories included with the console	Extras that can help enhance your gameplay	Included controllers; wired/wireless controller compatibility	Who can benefit from the special features the gaming system offers
	Yes, free PlayStation Network membership	Yes, 802.11b/g; Yes	Included, options available for PS3 games, BDs, DVDs, and Internet	Sony PlayStation 3 titles and select PlayStation titles	DualShock 3 wireless controller, USB cable, PlayStation Network membership, A/V cable	Blu-ray remote, Bluetooth headset, memory card adapter, wireless keypad, cables	Includes 1 DualShock 3 wireless controller; wireless	Someone who wants the value of a full gaming system with a BD player and media streaming
	Nintendo Wi-Fi Connection	Yes, 802.11b/g; Netflix streaming	Included, options available for Wii titles, online features and downloads, and more	Nintendo GameCube and Wii titles	Wii remote and nunchuck, sensor bar, Wii Sports game, console stand, A/V cable, adapter	Wireless Wii remote, wheel, classic (wired) controllers, wireless sensor bar	Includes 1 wireless Wii remote and nunchuck; both (some titles require a wired remote)	Gamers of any age who want a unique wireless gaming experience that requires little gaming knowledge
	Xbox Live	802.11n; Yes	N/A	N/A	Wireless controller, Xbox Live headset, A/V cable, free one-month trial to Xbox Live Gold	HDMI cable, USB flash drive, Play & Charge Kit	Includes 1 wireless controller; wireless (Kinect coming later this year)	Those who want an updated Xbox console with more storage capacity, built-in wireless capabilities, and more
	Nintendo Wi-Fi Connection	Yes; Yes	Included, options available for Nintendo DSi content	Nintendo DSi and Nintendo DS titles	AC adapter, 2 styli	Audio headset, battery power pack, screen protectors, carrying cases, styli	N/A	Users who want a handheld gaming system that lets them take, personalize, and share photos
	Nintendo Wi-Fi Connection	Yes; Yes	Included, options available for DSi software, DSi Browser, DSi Shop, and more	N/A	Rechargeable battery, AC adapter, stylus, and 4 preinstalled titles	Cases, adapters, headphones, full-sized stylus	N/A	Those who want a handheld gaming system better-suited for social gaming with a large screen
	Yes, PlayStation Network	Yes, 802.11b; Yes	Included	Available for download from PlayStation store	AC adapter, USB cable	Protective screen film, cradle, headphones, memory cards, cases	N/A	Those who need a bigger screen for their gaming, Internet, and media entertainment
	Yes, free PlayStation Network membership	Yes, 802.11b; No	Included, options available for UMDs, Internet, and video downloads	PlayStation Portable titles	AC adapter, battery pack	Battery charger, travel case, memory cards, A/V cable, AC adapter, car adapter	N/A	Those who want to enjoy gaming as well as movies, photos, and music when they're on the go

# This Month's Blu-ray Disc Releases

## Death At A Funeral



Rating: R | MSRP: \$34.95\* | SKU: 18678025

Release Date: 8/10/2010



## Diary Of A Wimpy Kid



Rating: PG | MSRP: \$39.99\* | SKU: 1001291

Release Date: 8/3/2010



## The Last Song



Rating: PG | MSRP: \$29.99\* | SKU: 1061459

Release Date: 8/17/2010



	Date	MSRP*	SKU	Rating
<b>August</b>				
\$5 A Day	8/24	\$29.98	18270973	N/A
A Prophet	8/3	\$38.96	1029803	R
Abandoned	8/24	\$29.99	1085759	PG-13
AfterLife	8/3	\$29.99	1065164	R
Anchorman: The Legend Of Ron Burgundy	8/31	\$29.99	18677593	PG-13
Bull Durham	8/3	\$24.99	9945468	R
Charlie's Angels	8/3	\$19.99	1029949	PG-13
City Island	8/24	\$29.99	1085604	PG-13
Date Night	8/10	\$39.99	1001264	PG-13
Death At A Funeral	8/10	\$34.95	18678025	R
Dexter: The Complete Fourth Season	8/17	\$44.99	1068392	N/A
Dexter: Four Season Pack	8/17	\$225.99	18626958	N/A
Diary Of A Wimpy Kid	8/3	\$39.99	1001291	PG
Dorian Gray	8/24	\$24.98	18628865	N/A
Elvis On Tour	8/3	\$36.99	9941754	G
Escape From New York	8/3	\$24.99	18655868	R
Fargo	8/3	\$24.99	9944245	R
Furry Vengeance	8/17	\$40.99	1074526	PG
Hamlet	8/17	\$29.99	1085322	PG-13
Harry Brown	8/31	\$30.95	18688771	R
Helen	8/10	\$24.98	18628286	N/A
Heroes: Season Four	8/3	\$59.99	1089451	TV14
House: Season Six	8/31	\$54.99	1089355	N/A
In The Shadow Of The Moon	8/10	\$17.98	18640639	PG
James & The Giant Peach	8/3	\$29.99	1061413	PG
La Mission	8/10	\$29.98	18648968	R
Lost: Complete Collection	8/24	\$194.99	9929971	N/A
Lost: Complete Sixth & Final Season	8/24	\$64.99	1006532	N/A
Mission Impossible III	8/3	\$24.99	18675152	PG-13
Mona Lisa	8/24	\$17.98	18643062	R
Multiple Sarcasms	8/10	\$29.98	18640435	R
Nanny McPhee	8/17	\$26.98	18618207	PG
National Lampoon's European Vacation	8/10	\$24.99	1025564	PG-13
National Lampoon's Vacation	8/10	\$24.99	1025467	R
Never Say Never Aagain	8/3	\$24.99	9944306	PG
Piranha	8/3	\$24.99	1022442	R
Road To Perdition	8/3	\$24.99	1085234	R
Simpsons: Season 13	8/24	\$49.99	1067569	N/A
Sons Of Anarchy: Season Two	8/31	\$59.99	1068407	N/A
The Backup Plan	8/24	\$34.95	18688486	PG-13
The Breakfast Club	8/3	\$24.99	1089294	R
The Ghost Writer	8/3	\$32.99	1074544	PG-13
The Good, The Bad, The Weird	8/17	\$29.98	9998688	R
The Joneses	8/10	\$29.99	1001228	R
The Last Song	8/17	\$29.99	1061459	PG
The Long Good Friday	8/24	\$29.98	18641161	N/A
The Square	8/24	\$30.95	18677845	R
Time Bandits	8/24	\$17.98	18644089	PG
To Save A Life	8/3	\$24.99	1029921	PG-13
Triage	8/10	\$24.98	18628983	N/A
Tyler Perry's Why Did I Get Married, Too?	8/31	\$39.99	18676115	PG-13
Vampire Diaries: Complete First Season	8/31	\$69.98	18672886	N/A

\*Prices listed in this issue are for general reference and may vary from retailer pricing.



## NOTEWORTHY

# Accessories & Services

The gaming experience goes beyond the game itself—you need the right console peripherals and the best just-in-case services. We've compiled a list of some of the must-have accessories that will only enhance your gameplay, so be sure to remember these items on the next trip to your local CE retailer.



## RACING WHEELS

- A gaming steering wheel puts you in the driver's seat of a virtual race
- A comfortable, accurate wheel will give you more control with turns, braking, and acceleration
- Be sure to purchase a racing wheel that's compatible with your specific gaming console



## USB DEVICES

- A USB media hub will let you connect other USB devices (including MP3 players and portable gaming devices) to your game console
- Use a USB rechargeable battery pack to charge the Li-Ion battery for guitar controllers



## EXTERNAL MEMORY

- External hard drives, USB drives, or memory cards back up your in-progress games
- When additional memory is connected to live (on-line) games, you can save gaming content and downloads
- The more memory you have, the more games and downloads you'll be able to store



## WIRELESS CONTROLLER

- Bluetooth technology lets you play while also having the freedom to move around
- Some controllers use traditional AAA batteries to sustain your playing time
- Find the best design for your grip: ergonomic or traditional



## GAMING KEYBOARD

- Adding a keyboard can help game efficiency—type in text codes and chat with other players quickly
- Look for a model with a touchpad so you can easily scroll around the game display
- Models that offer hotkeys will enable you to quickly perform tasks, such as gameplay actions



## MUSIC CONTROLLER ACCESSORIES

- Add a heavy-duty bass pedal to your gaming drum set to replace your standard pedal
- A tripod microphone stand will make your song-based games more true to life
- Extra cymbals for your rock drum kit will give you more freedom to express musical ability



## HEADSETS

- Use a hands-free headset to enhance your gaming experience by planning strategies aloud with your team
- A Bluetooth 2.0 headset is designed to communicate with your gaming console; Bluetooth headsets will be compatible with most game consoles
- Consider noise-canceling headsets with echo-minimizing microphones so you can hear and be heard clearly



## GAMING SERVICES

Your local CE retailer provides some helpful services, both in-home and in-store, to enhance your gaming console. Specifically, the professionals can set up online connections, install system updates, and transfer data to a gaming storage device.

- Configure online accounts
- Console system updates
- Stream media from a PC to a gaming console
- Connect a console to a home-theater system

## HOW TO BUY

# A Dishwasher

## Down The Drain With Hand Washing



A dishwasher that requires you to prewash the dishes by hand is more of an assistant than an appliance. Purchasing a new dishwasher that can do your dishes right will save you time, frustration, and even money. Read on for a few tips on buying a dishwasher.

**Dishwasher types.** Dishwashers come in three types, the most common of which are built in. Portable, countertop, and specialty models, such as compact single drawer and larger two-drawer models, are ideal for smaller kitchens.

Capacities include tall tub (up to 14 place settings), standard (up to 12 place settings), and compact (up to eight place settings). Keep in mind, a larger dishwasher capacity will let you wash dishes less frequently, which can save money in the long run.

Dishwashers come in three types . . .

**Back to basics.** Some features that make dishwasher use more convenient include removable racks that can accommodate more dishes, digital displays that tell you how much time is left in the current cycle, delayed start timers, multiple wash cycles, multiple dry cycles, self-cleaning capabilities, and built-in food disposers.

**Earth friendly.** When you see the Energy Star logo on a dishwasher, you can rest assured the appliance meets strict energy efficiency guidelines set by the Environmental Protection Agency and the Department of Energy. Energy Star-qualified dishwashers are capable of saving gallons of water thanks to more efficient jets and specially designed racks that maximize your dishes' exposure.

Energy Star-qualified dishwashers are capable of saving gallons of water . . .

**Advanced features.** Sensors in some models dispense just the right amount of detergent for the job and heat the water to the exact temperature for optimal cleaning. Sound dampening features result in quiet operation, and stainless-steel tubs hold heat better for improved performance, reduced noise, and superior durability. And to ensure your dishes are truly clean, some dishwashers have an NSF-certified sanitizing cycle that can kill 99.9% of bacteria.

Sound dampening features result in quiet operation . . .

## NEW ARRIVAL

MSRP: \$1,799 (stainless steel)  
[www.whirlpool.com](http://www.whirlpool.com)  
 SKU: 1034305

# A Fridge With More Space & Smarts

## Whirlpool's GSS26C4XX Side-By-Side Refrigerator



Sometimes technology becomes more efficient, more useful, and more beautiful all at the same time, and that's what's happened with Whirlpool's GSS26C4XX side-by-side refrigerator. It offers lots of shelf and crisper space to help you stay organized and keep food fresher longer, and it's energy-efficient.

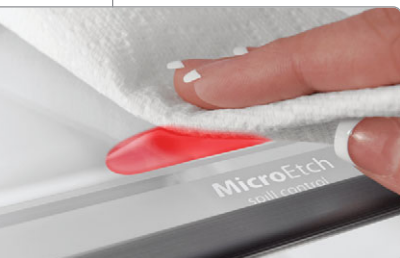
### Looks Do Matter

No one ever said that a refrigerator couldn't be a thing of beauty, and the GSS26C4XX is an aesthetically pleasing addition to any kitchen. It's available in six colors to complement your décor; contoured doors add a contemporary look, while flush hinges stay out of sight but allow the doors to open wide.



### Space & Capacity

Refrigerator buyers know that space costs money, but the GSS26C4XX makes having more space affordable. The in-door ice-making system creates 30% more freezer space than most models. MicroEtch Spill Control shelves add 30% more useable space than many similarly sized refrigerators, and the GSS26C4XX also offers a crisper large enough to hold 85 apples.



### Smart Food Storage

The GSS26C4XX uses built-in sensors to manage cooling and features a humidity-controlled crisper that helps preserve fruit and vegetables for longer periods of time. It also includes easy-to-clean spill control shelves and an in-door ice-making system that makes 20% more ice than in-freezer ice-makers by dropping the temperature for up to 24 hours.



**Coolest Feature.** The GSS26C4XX's built-in temperature sensors achieve greater overall energy efficiency, making it the most energy efficient side-by-side fridge in the industry.

### Whirlpool GSS26C4XY Highlights

- Plenty of fridge shelf and crisper space—16.4 cubic feet total
- A 9.9 cubic foot freezer
- MicroEtch spill control shelves to keep liquids from spreading
- Energy Star qualified
- Door alarm
- Clear gallon door bins, snack pan, and temperature-controlled meat pan
- Continuous glass freezer shelves that keep small items in place
- Dimensions (door open): 68 5/8 x 35 7/16 x 50 7/8 (HxWxD)



## ESSENTIAL THINGS TO KNOW

# Washers & Dryers

**Q** What is the primary difference between top-loading and front-loading washing machines?

**A** Front-loading washers feature a horizontal drum, while top-loading washers offer a vertical drum with an agitator to move the clothes. The front-loading washer design is more water-efficient, because it only needs to be partially filled with water with the high-speed drum lifting the clothes out of the water. Gravity causes the clothes to drop back into the water.

**Q** What are the benefits of a dryer moisture sensor?

**A** Compared to dryers with a thermostat, models with a moisture sensor help prevent overdrying, which might damage or shrink clothes. And by detecting the moisture level, the dryer can save energy by shutting itself off once your clothes are dry.

**Q** How do auto-dry cycles help my clothes reach a given level of dryness?

**A** Dryers with a moisture sensor generally feature custom levels, such as damp dry, normal dry, or very dry, so your clothes come out at the moisture level you prefer. For example, you could select damp dry if you wanted to iron your clothes after removing them from the dryer.

**Q** How do separate, automatic dispensers for detergent, bleach, and softener improve washing performance?

**A** By dispersing the cleaning liquid into the water at the appropriate time, you can be sure that the chemicals don't get directly on your clothes, which may stain or damage certain types of garments.

**Q** Why should I consider a washer or dryer with a steam cycle?

**A** The steam cycle can remove odors and wrinkles and is ideal for shirts and pants you want to wash quickly and wear.

**Q** In what situations would a quiet washer or dryer be beneficial?

**A** If your laundry room is next to a room where you'll be hanging out, watching TV, or sleeping, a washer and dryer with noise and vibration reducing features keeps the laundry equipment noise from being a nuisance.

**Q** Are stainless steel washer tubs superior to plastic or porcelain tubs?

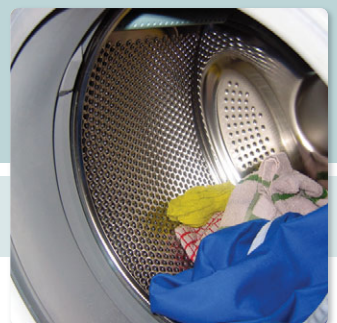
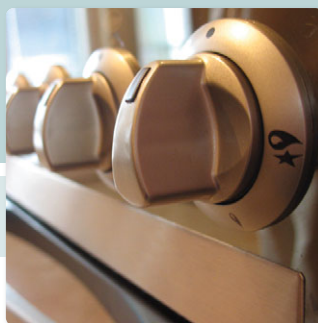
**A** Yes, stainless steel tubs won't chip, which can happen with porcelain tubs, and the steel is designed to withstand higher spin speeds, which can pull away more water and quicken drying times.

**Q** What types of items can I put inside a dryer's drying rack?

**A** Anything that could be damaged by tumbling, such as shoes, baseball caps, stuffed animals, and delicates. The racks typically fit onto the dryer door.

**Q** Who can benefit the most from washers with a sanitizing cycle?

**A** A sanitizing cycle boosts the water temperature to kill dust mites and germs, which is beneficial for people who suffer from asthma or are allergic to dust and pet dander.



# Prepare Hassle-Free Food With A GE Microwave

GE's countertop microwave ovens ([www.geappliances.com](http://www.geappliances.com)) offer a multitude of cooking options. Whether you want your leftovers reheated fast, popcorn popped at the touch of a button, or cooking times that don't require guesswork, GE offers microwaves to meet your lifestyle needs. Here's a look at select models and what they have to offer.



Product Name SKU	GE® JES0737DNBB/WW 9419729/ 9349216	GE® WES1130DMWW 8916747	GE® JES1142SJ 6963869	GE® JES1451DNBB 9337826	GE® JES1656SJ 6786891	GE Profile™ PEM31SMSS 8329196	GE Profile™ PEB2060SMSS 8329267
MSRP*	\$74	\$84	\$119	\$134	\$164	\$269	\$299
Oven Type	Compact	Mid-Size	Mid-Size	Family-Size	Full-Size	Spacemaker II	Jumbo
Oven Capacity (cu. ft.)	0.7	1.1	1.1	1.4	1.6	1.0	2.0
Wattage (IEC-705 test procedure)	700	1100	1100	1100	1150	800	1200
Control Type	Electronic Touch	Electronic Touch LED	Electronic Touch LED	Electronic Touch LED	Electronic Touch	Electronic Touch	Electronic Touch
Power levels	10	10	10	10	10	10	10
Sensor Cook	No	No	No	Yes	Yes	Yes	Yes
Control Features	Popcorn, Beverage, Reheat, Vegetable, Potato, Pizza	Beverage (4 Sizes), Cook (6 Codes), Popcorn (2 Sizes), Reheat (4 Codes)	Beverage, Cook (5 Codes), Pizza, Popcorn, Reheat (2 Codes)	Beverage, Popcorn, Potato, Reheat, Vegetables	Beverage, Popcorn, Potato, Vegetables	Beverage, Chicken/Fish, Popcorn, Potato, Reheat, Vegetables	Beverage, Chicken/Fish, Popcorn, Potato, Reheat, Vegetables
Express Cook	30 seconds	1 to 6 minutes	Yes	1 to 6 minutes	1 to 6 minutes	1 to 6 minutes	1 to 6 minutes
Instant On Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Cook I & II	Yes	Yes	No	Yes	Yes	Yes	Yes
Add 30 Seconds	Yes	Yes	No	Yes	Yes	Yes	Yes
Cooking Complete Reminder	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Auto & Time Defrost	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Kitchen Timer	Yes	No	Yes	Yes	No	No	No
Control Lockout	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Turntable Size	10-5/8 inches	11-2/5 inches	12-4/5 inches	14-3/16 inches	14-1/8 inches	11-5/16 inches	16 inches
Cavity Size In Inches (HxWxD)	8-5/8x12- 3/16x11-3/8	9-1/8x13- 7/32x13-23/32	9x14 x14-11/16 11-7/8x21-	9-13/16x14- 3/4x16-3/16	10-9/32x16-9/16x 6-11/16	7-7/16x16- 1/2x11-1/4	11-1/4x16- 11/16x18-1/16
Exterior Size In Inches (HxWxD)	10-7/8x16- 11/16x13-5/8	11-3/8x20- 3/8x15-1/8	1/4x15-3/4	12-5/16x21- 7/8x17-9/32	13-5/8x22-5/8x17- 3/8	11 3/16x23- 25/32x12-9/32	13-25/32x24x19- 13/32
Available Colors	Black, white	White	Stainless steel	Black	Stainless steel	Stainless steel	Stainless steel
Warranty	Limited one-year	Limited one-year exchange only	Limited one-year	Limited one-year exchange only	Limited one-year, limited five-year magnetron	Limited one-year, limited five-year magnetron	Limited one-year, limited five-year magnetron
Additional Features		Delay start		Scrolling display	Display on/off; sound volume control	Turntable on/off; display on/off; delay start; help pad; ADA com- pliant	2-line scrolling display with help pad; ADA com- pliant; display on/off

\* Prices listed in this issue are for general reference and may vary from retailer pricing.

## NOTEWORTHY

# Accessories & Services

After you've selected an appliance, you need to make sure you have all of the necessary extras, such as cords or hoses for installation. It's also good to consider if you want a professional to deliver and install your unit. By adding the accessories below, you can ensure your appliance's performance remains top-notch.



## VACUUM BELTS, BAGS & FILTERS

- Replace vacuum belts every year for optimum performance.
- Trap airborne pollutants, such as household dust, particles, and debris with micro allergen or hepa filter vacuum bags and filters.



## HIGH-EFFICIENCY LAUNDRY DETERGENT

- Wash clothes better with a detergent that's formulated to work with a high-efficiency washer.
- HE detergent prevents damage to your washer, such as leaking, vibration, and poor spinning.



## GAS FLEX LINES

- **Ranges and laundry dryers.** Gas lines aren't included with these appliances, so you'll need to pick one up.
- With an auto shutoff feature, you can protect your home from gas leaks
- Professional installers require a new gas line.



## UPHOLSTERY & FLOOR CLEANING AGENTS

- Make cleaning easy with products made for particular surfaces, such as multi-floor, wood floors, carpet, and upholstery.
- Some agents can be used with a variety of products, but others are for specific product use.



## LAUNDRY PEDESTALS

- Raise your front-loading washer and dryer to an easy-to-access and more ergonomic height.
- Store laundry supplies in pedestals that double as drawers.



## REFRIGERATOR BULBS & FILTERS

- Keep a spare bulb on hand to replace burnt out interior lights.
- Ensure your dispensed water and ice always taste fresh with extra water filters.



## WATER LINES

- **Refrigerators.** Some models include plastic water lines, which are susceptible to twisting or leaks. A better alternative is a line made of metal, such as copper or stainless steel.
- **Washing machines.** Don't settle for the rubber hose that comes with your machine, as it can burst. Instead, opt for a durable stainless steel hose that will last longer.
- **Dishwashers.** Reusing an old water line can lead to water damage. Instead, get a dishwasher kit that includes a water line and power cord for the best performance.



## ELECTRICAL CORDS

Power cords aren't included with these appliances. Here's what you should know:

- **Washers and dryers.** All new models use 4-prong cords, but models made before 1984 require a 3-prong cord replacement.
- **Dishwashers.** Purchase a three-prong cord individually or in a kit that includes a water line.
- **Ranges.** Check your home's electrical outlet to get either a 3-prong or 4-prong cord.

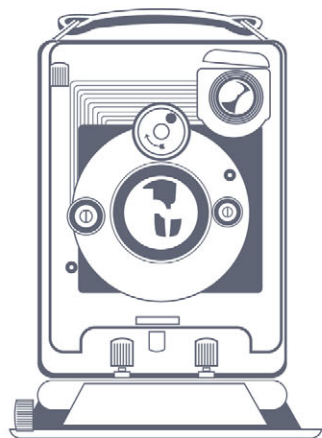


## APPLIANCES SERVICES

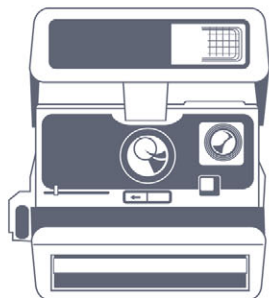
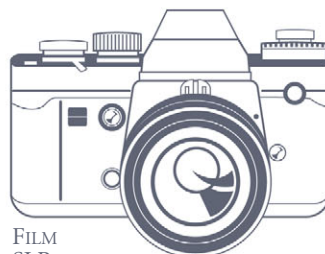
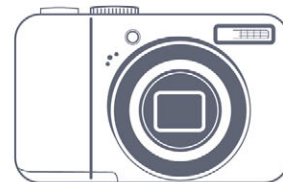
Whether you're buying a new unit or need to tune up your existing one, CE retailers offer professional services like the ones below to help get your appliance up and running in no time.

- Delivery & Installation
- Appliance Recycling
- Appliance Service Plans
- Appliance Repairs





FOLDING CAMERA

INSTANT FILM  
CAMERAFILM  
SLR  
CAMERAPOINT-&-SHOOT  
DIGITAL  
CAMERA

# Micro Four Thirds Cameras

Olympus and Panasonic developed the Four Thirds camera standard to both enhance the quality of digital photography and to facilitate better D-SLR lens and camera compatibility.

Four Thirds cameras have another attractive side effect, which is that they are typically fairly compact, which makes toting them all over the globe an easier task than with a larger D-SLR.

And that seemingly odd “Four Thirds” name? That comes from the aspect ratio of the photos the camera produces (4:3), in contrast to the 3:2 of traditional film cameras.

Micro Four Thirds is a derivative of Four Thirds, and as the name implies, it allows for an even greater reduction in camera and lens sizes. The result is that Micro Four Thirds cameras are just slightly larger than the average point-and-shoot, but they offer a high image quality, more D-SLR-like functionality, and

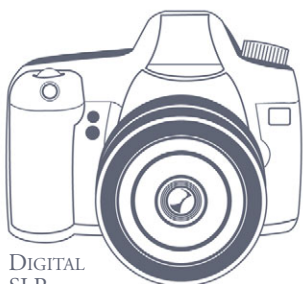
the ability to use Micro Four Thirds lenses from different manufacturers.

## Digital Concept

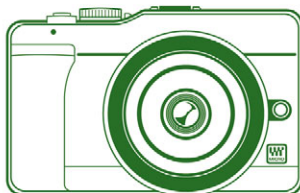
The concept of the Micro Four Thirds camera is entirely digital, meaning that they can continue to adapt to meet future photography advances. Unlike D-SLR cameras, Micro Four Thirds cameras use smaller lenses, allowing you to snap shots in a variety of places a typical D-SLR would never fit (although a compact point-and-shoot camera will still win the size war).

## Smaller Camera Body

The means by which this reduction in size is achieved is simple but smart. Most D-SLRs offer two different ways for a photographer to preview an image: via an LCD screen on the back of the camera body or through a traditional viewfinder. The viewfinder requires an additional mirror box inside the camera,



DIGITAL  
SLR  
CAMERA



MICRO FOUR  
THIRDS  
DIGITAL CAMERA

which requires a larger camera body to accommodate it. Micro Four Thirds cameras do away with the viewfinder and the accompanying mirror box to produce cameras with incredibly slim bodies that rely only on the LCD screen to set up shots.

Because the body of a Micro Four Thirds camera is slimmer than a Four Thirds camera, the distance from the lens mount to the image sensor is shorter. Therefore, Micro Four Thirds lenses don't need to be as long as Four Thirds lenses, making the former even thinner than their lithe Four Thirds cousins, which facilitates even better portability.

## Open Lens Standard

The lens mounts on Micro Four Thirds cameras are standardized, so all camera and lens manufacturers can use the same specifications. This makes it possible to use a lens made by one manufacturer on a camera from a different manufacturer.

With the Four Thirds standard, the lens mount is wide enough compared to the image sensor that there are no image problems created by edge distortion for high-quality images, and the extra size makes it easier to develop good lenses for Four Thirds cameras.

On Micro Four Thirds cameras, the lens mount is slightly smaller (6mm) and has two additional contact points by which the lens communicates with the camera (11 instead of nine). The extra contact points are designed to offer a shorter shutter lag and better communication between the lens and camera.

Despite these differences, you can still use Four Thirds lenses on a Micro Four Thirds camera with an adapter. **FG**

BY SETH COLANER



Olympus PEN E-PL1  
\$599.99 | [www.olympus.com](http://www.olympus.com)

## Olympus PEN E-PL1

The Olympus PEN E-PL1 (\$599.99; [www.olympus.com](http://www.olympus.com)) is a Micro Four Thirds camera designed to match the quality of a D-SLR. It features an image stabilization system built into the camera body, a Super-Sonic Wave Filter to reduce dust, and a 12.3MP high-speed Live-MOS sensor.

The Olympus PEN E-PL1's Live Guide and iAUTO features automatically help you create images with the best color, contrast, and aspect ratio. With Art Filters, you can apply several professional-looking effects to your photos and HD videos within the camera itself.

For storage, the camera supports SD and SDHC memory cards and boasts USB 2.0, HDMI, and a video output for connectivity. You can print directly to any PictBridge-enabled printer from the PEN E-PL1.

Other features include an exposure control metering system, ISO sensitivity up to 3200, several picture modes including Portrait and Custom, integrated flash, and multiple available aspect ratios.

Included with the PEN E-PL1 is a 14-42mm M.Zuiko Digital ED F3.5-5.6 kit lens, so you can start snapping high-quality photos right away. ●



# Show Off Your Artistic Side

## Technology Gets Creative

Technology can be used for many practical tasks, both at work and at home. But this month, we take a look at some of the products available at your local CE retailer that will let you use technology to be creative.



### ○ Crayola Art Studio

Kids can learn both art and computer skills with Crayola Art Studio's set of realistic art tools, preset colors, and included images. They can turn their creations into invitations, greeting cards, and more.

**\$19.99**



### ○ Nikon D300s

With a D-SLR, you can take your photos to the next creative level by manually adjusting settings and changing out lenses to get the right perspective. Once you've captured the moment, use in-camera editing features to further enhance the photo.

**\$1,699.99**



### ○ GPX Karaoke Party Machine

Show off your inner Idol with the Karaoke Party Machine from GPX. It hooks up to your TV and is compatible with a variety of CD formats.

**\$39.99**

### ○ Wacom Bamboo Pen & Touch Tablet

Create your own digital artwork or enhance your photos with the Wacom Bamboo Pen and Touch tablet. Compatible with both PCs and Macs, the tablet also comes with creative software.

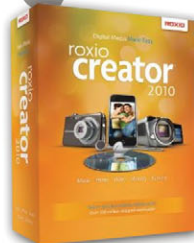
**\$99.99**



### ○ Yamaha 6-String Cutaway Guitar

This guitar from Yamaha features a 22-fret rosewood fingerboard, one-way piezo pickup, and three-band EQ controls for both creating and playing music.

**\$299.99**



### ○ Roxio Creator 2010

Roxio Creator 2010 can be used with many different types of media. Creatively enhance your favorite photos, create print projects such as greeting cards, add effects to video, and more.

**\$99.99**







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